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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Missile Defense Agency **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				PE 0603904C: <i>MISSILE DEFENSE INTEGRATION & OPERATIONS CENTER (MDIOC)</i>							
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	82.926	86.198	69.325	-	69.325	64.514	55.808	56.769	54.621	Continuing	Continuing
CX22: <i>Missile Defense Integration & Operations Center (MDIOC) - Block 3.0</i>	21.942	-	-	-	-	-	-	-	-	0.000	21.942
YX22: <i>Missile Defense Integration & Operations Center (MDIOC) Core</i>	58.522	-	-	-	-	-	-	-	-	0.000	58.522
MD22: <i>Missile Defense Integration and Operations Center (MDIOC)</i>	-	83.298	66.484	-	66.484	61.812	53.304	54.341	52.293	Continuing	Continuing
ZX40: <i>Program-Wide Support</i>	2.462	-	-	-	-	-	-	-	-	0.000	2.462
MD40: <i>Program-Wide Support</i>	-	2.900	2.841	-	2.841	2.702	2.504	2.428	2.328	Continuing	Continuing

Note

In accordance with the Missile Defense Agency revised budget structure, the content previously planned in Project(s) CX22, YX22, and ZX40 is captured in Project MD22 and MD40 beginning FY 2011.

A. Mission Description and Budget Item Justification

The Missile Defense Integration and Operations Center (MDIOC) is MDA's field operating activity in Colorado Springs, CO. It provides the necessary infrastructure and support services through a mission execution platform for MDA elements/components and designated Combatant Commanders' Ballistic Missile Defense System (BMDS) operations executing missions at the Missile Defense Integration and Operations Center (MDIOC). The Integration Center is the organization responsible for providing a single, integrated set of skilled personnel matrixed from across MDA to manage this mission. The Missile Defense Integration and Operations Center (MDIOC) mission facilities consists of a highly secure research and development complex and a mission support module (area) located within a military installation (Schriever AFB) that is adjacent to North American Aerospace Defense Command (NORAD) and United States Northern Command (USNORTHCOM). The MDA Integration Center provides mission critical system technical capabilities and subject matter expertise in a dedicated and adaptable environment that enables developers, testers, and operators to evolve, assess and deliver the capabilities for layered missile defense execution for homeland defense and theater/regional support. The Missile Defense Integration and Operations Center (MDIOC) interfaces with the Information Technology/Information Assurance Enterprise to provide high availability access to worldwide secure communications connectivity, network health and status monitoring, mission critical restoral capability, and technical expertise for all MDA directed activities and events. The MDIOC functions as the mission control for BMDS distributed ground test and system wide flight tests. The mission and test directors for these key tests control both main and associated test operations using secure voice, test, and mission network hubs at the MDIOC. The Missile Defense Integration and Operations Center (MDIOC) also functions (within MDA's capabilities-based acquisition strategy) as the only system-level integration and interoperability mission execution platform for BMDS fire control; and it provides the physical interface between the developers and the Combatant Command Warfighters.

UNCLASSIFIED

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Missile Defense Agency		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0603904C: MISSILE DEFENSE INTEGRATION & OPERATIONS CENTER (MDIOC)	
<p>Missile Defense Integration and Operations Center (MDIOC) mission facilities contribute to the BMDS by directly supporting the concept of Concurrent Test, Training, and Operations (CTTO) for the BMDS. The Missile Defense Integration and Operations Center (MDIOC) accomplishes this by providing engineering integration, resource scheduling, configuration management, and implementation development support for MDA and BMDS-level test, training, and operational mission execution. The Integration Center provides engineering and operational integration by:</p> <ul style="list-style-type: none">- Implementing the technical event architectures for the models and simulations used to support missile defense planning seminars,wargames, exercises, and analyses- Supporting the planning and execution of the only end-to-end operator-in-the-loop/element-in-the-loop missile defense wargames- Supporting BMDS Critical Engagement Conditions (CEC) testing and analysis by operating the Test Execution Control (TEC) for distributed BMDS ground tests (i.e. GTX, GTI, and GTD), and ensuring the integrity of their technical system architecture- Providing network operations and information assurance for all on-site integration activities - Integrating and sustaining the enabling infrastructure, services, and processes that support the operation of designated elements of the BMDS and resident Combatant Command (COCOM) operations and/or support centers- Providing technical support for the BMDS Watch Officers (BWO's), BMDS Safety Officers (BSO's), and Information Assurance Officers in their efforts to monitor and assess the health and status of the networks and elements that impact BMDS test and operations- Operating the Joint Early Warning Laboratory (JEWL) for anomaly resolution- Supporting the Intelligence Support Center (ISC) for critical situational awareness intelligence on worldwide ballistic missile developments that could affect the development and/or operation of the BMDS <p>Missile Defense Integration and Operations Center (MDIOC) Major Program Goals</p> <ul style="list-style-type: none">- Provide the capabilities and services necessary to support engineering integration, resource scheduling for ground and flight tests, configuration management, and implementation development support of on-site activities- Ensure around the clock support and restoral of designated BMDS operational activities- Improve interface with designated Combatant Command (COCOM) missile defense activities; host/support the headquarters and operations center for United States Strategic Command (USSTRATCOM's) Joint Functional Component Command - Integrated Missile Defense (JFCC-IMD)- Continue to achieve cost effectiveness and efficiencies through the leveraging of existing Missile Defense Integration and Operations Center (MDIOC) infrastructure, services, processes, and expertise to support assigned missions- Maintain and improve as designated the reliability, availability, and maintainability of mission critical systems		

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APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE
0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	PE 0603904C: <i>MISSILE DEFENSE INTEGRATION & OPERATIONS CENTER (MDIOC)</i>

B. Program Change Summary (\$ in Millions)	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012 Base</u>	<u>FY 2012 OCO</u>	<u>FY 2012 Total</u>
Previous President's Budget	86.483	86.198	88.181	-	88.181
Current President's Budget	82.926	86.198	69.325	-	69.325
Total Adjustments	-3.557	-	-18.856	-	-18.856
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-0.058	-			
• SBIR/STTR Transfer	-1.748	-			
• Other Adjustment Detail	-1.751	-	-18.856	-	-18.856

Change Summary Explanation

The FY 2012 \$18.856 million dollar decrease in this program element is the result of program adjustments and \$1.201 million in efficiency savings.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Missile Defense Agency									DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603904C: <i>MISSILE DEFENSE</i> <i>INTEGRATION & OPERATIONS CENTER</i> <i>(MDIOC)</i>				PROJECT CX22: <i>Missile Defense Integration & Operations Center (MDIOC) - Block 3.0</i>			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
CX22: <i>Missile Defense Integration & Operations Center (MDIOC) - Block 3.0</i>	21.942	-	-	-	-	-	-	-	-	0.000	21.942
Quantity of RDT&E Articles	0	0	0		0	0	0	0	0		
A. Mission Description and Budget Item Justification Project CX22 has been transferred to project MD22											
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2010	FY 2011	FY 2012
Title: See Project MD22 for FY 2010 Accomplishments Description: See Description Below FY 2010 Accomplishments:									Articles: 21.942 0	-	-
Accomplishments/Planned Programs Subtotals									21.942	-	-
C. Other Program Funding Summary (\$ in Millions) N/A											
D. Acquisition Strategy NA											
E. Performance Metrics NA											

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Missile Defense Agency									DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603904C: <i>MISSILE DEFENSE</i> <i>INTEGRATION & OPERATIONS CENTER</i> <i>(MDIOC)</i>				PROJECT YX22: <i>Missile Defense Integration & Operations</i> <i>Center (MDIOC) Core</i>			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
YX22: <i>Missile Defense Integration & Operations Center (MDIOC) Core</i>	58.522	-	-	-	-	-	-	-	-	0.000	58.522
Quantity of RDT&E Articles	0	0	0		0	0	0	0	0		
A. Mission Description and Budget Item Justification Project YX22 has been transferred to project MD22											
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2010	FY 2011	FY 2012
Title: See Project MD22 for FY 2010 Accomplishments Description: See Description Below FY 2010 Accomplishments:									Articles: 58.522 0	-	-
Accomplishments/Planned Programs Subtotals									58.522	-	-
C. Other Program Funding Summary (\$ in Millions) N/A											
D. Acquisition Strategy NA											
E. Performance Metrics NA											

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Missile Defense Agency									DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603904C: MISSILE DEFENSE INTEGRATION & OPERATIONS CENTER (MDIOC)				PROJECT MD22: Missile Defense Integration and Operations Center (MDIOC)			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
MD22: Missile Defense Integration and Operations Center (MDIOC)	-	83.298	66.484	-	66.484	61.812	53.304	54.341	52.293	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0		0	0	0	0	0		

Note

In accordance with the Missile Defense Agency revised budget structure, the content previously planned in Project(s) CX22, YX22, and ZX40 is captured in Project MD22 and MD40 beginning FY 2011. (CX22 \$21.942M, YX22 \$58.522M, ZX40 \$2.462M)

A. Mission Description and Budget Item Justification

The Missile Defense Integration and Operations Center (MDIOC) sustains and operates a 24 hours a day, 7 days a week, 365 days a year mission complex for critical research, development, testing, training, and operations for BMDS activities. The Missile Defense Integration and Operations Center (MDIOC) supports the Ground-based Midcourse Missile Defense Mission Control Center Facility, as well as the Command, Control, Battle Management, and Communications (C2BMC) Integration and Test Centers and the C2BMC Experimentation Laboratories. It provides infrastructure support for the Satellite Tracking and Surveillance System's (STSS) Missile Defense Space Experimentation Center (MDSEC); and the Targets and Countermeasures' (TC) Joint Target Operations Center (JTOC). The Missile Defense Integration and Operations Center (MDIOC) also provides developmental support to the Enterprise Sensors Laboratory (ESL) composed of a common satellite ground station and sensor netting test bed for designated Ballistic Missile Defense System (BMDS) elements. It supports BMDS Critical Engagement Conditions testing and analysis through the operation of the Test Execution Control node for distributed BMDS ground tests. During system flight test, the MDIOC provides infrastructure (power, HVAC, and communications) support to the Flight Test Director and crew, and ensures the protection of those critical facility and test assets throughout the test window. Further, the Missile Defense Integration and Operations Center (MDIOC) provides the facilities that support operations of the Missile Defense Element, manned by the U.S. Army 100th Missile Defense Brigade, the United States Northern Command (USNORTHCOM) Command, Control, Battle Management and Communications (C2BMC) Command and Control Center (CCC), the United States Strategic Command's (USSTRATCOM's) Joint Functional Component Command-Integrated Missile Defense (JFCC-IMD) and the Missile Defense Agency (MDA) Warfighter Support Center. In addition, the Missile Defense Integration and Operations Center (MDIOC) supports the MDA Operations Support Center, which provides situational awareness of the health and status of the end-to-end BMDS, provides network subject matter expertise and technical reach back for the program elements and Combatant Commanders. The Missile Defense Integration and Operations Center (MDIOC) hosts BMDS wargames and exercises in support of the warfighter, and delivers requisite infrastructure for Modeling and Simulation to provide and integrate digital modeling and simulation assets to the Digital Simulation Architecture that form system-level constructive simulations for full-envelope BMDS performance assessment with surrogate capability for BMDS ground tests. The Missile Defense Integration and Operations Center (MDIOC) maintains a technical repository of BMDS Implementation Architectures for real-time operations and configuration control; provides both state change management and asset management technical support for the BMDS; and provides the technical environment for BMDS Watch Officers, Safety Officers, and Information Assurance Officers to execute their assigned duties. The Missile Defense Integration and Operations Center (MDIOC) also supports the operations of the Joint Early Warning Laboratory (JEWL), which provides United States Strategic Command (USSTRATCOM) with quick response analyses of real-world launches, and rapid anomaly identification and resolution.

UNCLASSIFIED

UNCLASSIFIED

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APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603904C: <i>MISSILE DEFENSE</i> <i>INTEGRATION & OPERATIONS CENTER</i> (MDIOC)	PROJECT MD22: <i>Missile Defense Integration and Operations Center (MDIOC)</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
Title: Infrastructure Systems and Support		-	19.246	21.178
Articles:		0	0	0
Description: See Description Below				
FY 2010 Accomplishments: Funding for these FY 2010 accomplishments is reported in prior year Budget Project YX22 (\$20.185M)				
-Computing Center (Operating Systems, Print/Storage Services, Audio/Visual, Operations and Maintenance)				
-Continued to maintain a mission execution platform to provide an enabling infrastructure (to include hardware, software maintenance, licenses, and upgrades) that supports MDA Research, Development, Test and Evaluation (RDT&E) efforts at the Missile Defense Integration and Operations Center (MDIOC) for the MDA elements/components, and Combatant Command and warfighter operational elements				
-Provided computer hosting of specified threat models and support the integration of other threat tools as required				
-Planned/Initiated, when directed, the installation of additional intelligence data feeds required to support the Operations Support Center (OSC)				
-Provided file, print, and messaging services; managed and maintained automated patching software, and virus protection servers. Managed and maintained the MDA Enterprise directory services supporting user access to MDA Enterprise network resources; performed preventive maintenance and ensured data recovery capability through proper data backup scheduling and execution				
-Piloted implementation of Missile Defense Integration and Operations Center (MDIOC) Audio/Visual (A/V) Distribution and Infrastructure to provide digital video compression and transport of test and even video information				
-Completed technical refresh of Presentation Center A/V distribution to include a three-head display and soundboard refresh/upgrade				
-Missile Defense Integration and Operations Center (MDIOC) Communication Services				
-Installed communications and networking infrastructure (hardware/software) in support of evolving mission requirements of resident MDA development, test, training, and operational activities				
-Provided telephony services to include: Provided local, long distance and Defense Switch Network telephone systems. Telephone Switch Operations: Operated, maintained, and upgraded telephone switches, nodes, and Private Branch Exchanges to include 911 support				
-Network Management Transport Services				

UNCLASSIFIED

UNCLASSIFIED

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APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603904C: <i>MISSILE DEFENSE</i> <i>INTEGRATION & OPERATIONS CENTER</i> <i>(MDIOC)</i>	PROJECT MD22: <i>Missile Defense Integration and Operations Center (MDIOC)</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011
<ul style="list-style-type: none"> -Acquired and distributed mission critical unclassified and secure communications capability to ten resident MDA elements/ components and BMDS and warfighter operational elements -Provided management of network capabilities by monitoring and controlling the network infrastructure, available bandwidth, hardware, and distributed software resources -Maintained the technical infrastructure and equipment which includes, routers and switches, Core Cryptographic Devices; Edge Encryption Devices; Global Engagement Manager (GEM); base and long-haul communications -Information Assurance Systems -Provided information assurance to MDA elements/components, BMDS elements, and Combatant Command (COCOM) and warfighter operational elements resident at the Missile Defense Integration and Operations Center (MDIOC) -Maintained DoD Information Assurance Certification and Accreditation Process (DIACAP) accreditation packages; managed the Information Assurance Vulnerability Assessment Program and provided technical assistance to Controls Validation Tests -Provided DoD Information Assurance Certification and Accreditation Process (DIACAP) package management; ensured timely submissions to Information Assurance Manager/Designated Accrediting Authority (IAM/DAA) for MDA Admin/General Services (GENSER) and Event Packages -Performed architecture design, engineering, and configuration management reviews for all assigned projects -Managed the Information Assurance Vulnerability Assessment and Communications Tasking Order remediation and implementation efforts to ensure Defense Information Systems Agency/Joint Task Force - Global Network Operations (DISA/JTF-GNO) directed compliance -Conducted activities supporting a Joint Task Force - Global Network Operations (JTF-GNO) driven Command Cyber Readiness Inspection resulting in an ``Outstanding`` rating in overall network and system security posture -Implemented seamless network access control for MDA IT customers -Infrastructure Implementation Engineering -Implemented intelligence hardware/software updates as required to support the Operations Support Center -Provided Missile Defense Integration and Operations Center (MDIOC) centric test event network related detailed designs in support of Test Events and real world operational events, provided implementation plans, updated interface control documents and performed Change Control and Configuration Management services 			

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APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603904C: <i>MISSILE DEFENSE</i> <i>INTEGRATION & OPERATIONS CENTER</i> <i>(MDIOC)</i>	PROJECT MD22: <i>Missile Defense Integration and Operations Center (MDIOC)</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011
<p>-Planned, designed, tested and operated the IT and communications technical architecture including Internet Protocol addressing schema, routing tables, switching policies, data paths, information assurance controls, fire wall configurations, application configurations, band width allocations for sub networks and eventual post event return to base line</p> <p>-Provided technical health and status monitoring, troubleshooting, and break/fix, IT/Communications support for each of the event architectures including critical asset identification, monitoring, Quality Assurance/Quality Control (QA/QC) seals with configuration management and job control</p> <p>-Planned/Designed/Implemented interim Defense Information System Agency - Global Information Grid (DISA GIG) Mission Assurance node installation</p> <p>-Planned/Designed/Implemented Electronic Security System Upgrade for Missile Defense Integration and Operations Center (MDIOC) physical security improvements/technology refreshment</p> <p>-Software Licenses, Services and Applications</p> <p>-Maintained critical software licensing and maintenance agreements to meet critical customer and legal requirements enabling continued software support necessary to maintain the directed computer network defense posture and ensured continued system operational availability</p> <p>-Planned/Designed/Implemented Classified Local Area Network (CLAN) trouble ticketing and IT asset management system</p> <p>-Implemented Missile Defense Integration and Operations Center (MDIOC)-based IT integrated test lab providing application and software configuration management services</p> <p>FY 2011 Plans:</p> <p>-Computing Center (Operating Systems, Print/Storage Services, Audio/Visual, Operations and Maintenance)</p> <p>-Continue to maintain a mission execution platform to provide an enabling infrastructure (to include hardware, software maintenance, licenses, and upgrades) that supports MDA Research, Development, Test and Evaluation (RDT&E) efforts at the Missile Defense Integration Operations Center (MDIOC) for the MDA elements/components, and Combatant Command and warfighter operational elements</p> <p>-Provide computer hosting of specified threat models and support the integration of other threat tools as required</p> <p>-Plan/Initiate, when directed, the installation of any additional intelligence data feeds required to support the Operations Support Center (OSC)</p> <p>-Provide file, print, and messaging services; manage and maintain automated patching software, and virus protection servers. Manage and maintain the MDA Enterprise directory services supporting user access to MDA Enterprise network resources; perform preventive maintenance and ensure data recovery capability through proper data backup scheduling and execution</p>			

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APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603904C: <i>MISSILE DEFENSE</i> <i>INTEGRATION & OPERATIONS CENTER</i> <i>(MDIOC)</i>	PROJECT MD22: <i>Missile Defense Integration and Operations Center (MDIOC)</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011
<ul style="list-style-type: none"> -Plan/Design enhancements to the Missile Defense Integration and Operations Center (MDIOC) Data Center including floorspace allocations, equipment staging areas, and streamlined logistics support function -Design/Implement upgrades to audio/visual support to the Missile Defense Integration and Operations Center (MDIOC) cafeteria supporting the distribution of signals over Internet Protocol -Missile Defense Integration and Operations Center (MDIOC) Communication Services -Install communications and networking infrastructure (hardware/software) in support of evolving mission requirements of resident MDA development, testing, training, and operational activities -Implement Class and Unclassified Voice Over Internet Protocol (VOIP) expansion to include the completion of the Missile Defense Integration and Operations Center (MDIOC) VOIP implementation -Provide telephony service to include: Telephone/Fax Service: Provide local, long distance and Defense Switch Network telephone systems. Telephone Witch Operations: Operate, maintain, and upgrade telephone switches, nodes, and Private Branch Exchanges to include 911 support -Network Management Transport Services -Acquire and distribute mission critical unclassified and secure communications capability to ten resident MDA elements/ components and BMDS and warfighter operational elements -Provide management of network capabilities by monitoring and controlling the network infrastructure, available bandwidth, hardware, and distributed software resources. -Maintain the technical infrastructure and equipment which includes, routers and switches, Core Cryptographic Devices; Edge Encryption Devices; Global Engagement Manager (GEM); base and long-haul communications -Information Assurance Systems -Provide information assurance to MDA elements/components, BMDS elements, and Combatant Command (COCOM) and warfighter operational elements resident at the Missile Defense Integration and Operations Center (MDIOC) -Maintain DoD Information Assurance Certification and Accreditation Process (DIACAP) accreditation packages; manage the Information Assurance Vulnerability Assessment Program and provide technical assistance to Controls Validation Tests -Provide DoD Information Assurance Certification and Accreditation (DIACAP) package management; ensure timely submissions to Information Assurance Manager/Designated Approval Authority (IAM/DAA) for MDA Admin/General Services (GENSER) and Event Packages -Perform architecture design, engineering, and configuration management reviews for all assigned projects 			

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APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603904C: <i>MISSILE DEFENSE</i> <i>INTEGRATION & OPERATIONS CENTER</i> <i>(MDIOC)</i>	PROJECT MD22: <i>Missile Defense Integration and</i> <i>Operations Center (MDIOC)</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011
<p>-Manage the Information Assurance Vulnerability Assessment and Communications Tasking Order remediation and implementation efforts to ensure Defense Information Systems Agency/Joint Task Force - Global Network Operations (DISA/JTF-GNO) directed compliance</p> <p>-Infrastructure Implementation Engineering</p> <p>-Implement intelligence hardware/software updates as required to support the Operations Support Center</p> <p>-Provide Missile Defense Integration and Operations Center (MDIOC) centric test event network related detailed designs in support of Test Events and real world operational events, provide implementation plans, update interface control documents and perform Change Control and Configuration Management services</p> <p>-Plan, design, test and operate the IT and communications technical architecture including Internet Protocol addressing schema, routing tables, switching policies, data paths, information assurance controls, fire wall configurations, application configurations, band width allocations for sub networks and eventual post event return to base line</p> <p>-Provide technical health and status monitoring, troubleshooting, and break/fix, IT/Communications support for each of the event architectures including critical asset identification, monitoring, Quality Assurance/Quality Control (QA/QC) seals with configuration management and job control</p> <p>-Implement final Defense Information Systems Agency Global Information Grid (DISA GIG) Mission Assurance node configuration</p> <p>-Software Licenses, Services and Applications</p> <p>-Maintain critical software licensing and maintenance agreements to meet critical customer and legal requirements, enable continued software support necessary to maintain the directed computer network defense posture and ensure continued system operational availability</p> <p>-Plan/Design/Implement technical lifecycle, refresh, and standardization of Missile Defense Integration and Operations Center (MDIOC) print services</p> <p>-Implement Missile Defense Integration and Operations Center (MDIOC) web cam upgrade and technology refresh</p> <p>-Implement a consolidated MS Project Server and deliver as a web based service</p> <p>FY 2012 Plans:</p> <p>-Computing Center (Operating Systems, Print/Storage Services, Audio/Visual, Operations and Maintenance)</p> <p>-Continue to maintain a mission execution platform to provide an enabling infrastructure (to include hardware, software maintenance, licenses, and upgrades) that supports MDA Research, Development, Test and Evaluation (RDT&E) efforts at the</p>			

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APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>		R-1 ITEM NOMENCLATURE PE 0603904C: <i>MISSILE DEFENSE</i> <i>INTEGRATION & OPERATIONS CENTER</i> <i>(MDIOC)</i>		PROJECT MD22: <i>Missile Defense Integration and</i> <i>Operations Center (MDIOC)</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2010	FY 2011	FY 2012
<p>Missile Defense Integration and Operations Center (MDIOC) for the MDA elements/components, and Combatant Command and warfighter operational elements</p> <ul style="list-style-type: none"> -Provide computer hosting of specified threat models and support the integration of other threat tools as required -Plan/Initiate, when directed, the installation of any additional intelligence data feeds required to support the Operations Support Center (OSC) -Provide file, print, and messaging services; manage and maintain automated patching software, and virus protection servers. Manage and maintain the MDA Enterprise directory services supporting user access to MDA Enterprise network resources; perform preventive maintenance and ensure data recovery capability through proper data backup scheduling and execution -Plan/Design enhancements to the Missile Defense Integration and Operations Center (MDIOC) Data Center including floorspace allocations, equipment staging areas, and streamlined logistics support function -Design/Implement upgrades to audio/visual support to the Missile Defense Integration and Operations Center (MDIOC) cafeteria supporting the distribution of signals over Internet Protocol -Missile Defense Integration and Operations Center (MDIOC) Communication Services -Install communications and networking infrastructure (hardware/software) in support of evolving mission requirements of resident MDA development, testing, training, and operational activities -Implement Class and Unclassified Voice Over Internet Protocol (VOIP) expansion to include the completion of the Missile Defense Integration and Operations Center (MDIOC) VOIP implementation -Provide telephony services to include: Telephone/Fax Service: Provide local, long distance and Defense Switch Network telephone systems. Telephone Switch Operations: Operate, maintain, and upgrade telephone switches, nodes, and Private Branch Exchanges to include 911 support -Network Management Transport Services -Acquire and distribute mission critical unclassified and secure communications capability to ten resident MDA elements/ components and BMDS and warfighter operational elements -Provide management of network capabilities by monitoring and controlling the network infrastructure, available bandwidth, hardware, and distributed software resources -Maintain the technical infrastructure and equipment which includes, routers and switches, Core Cryptographic Devices; Edge Encryption Devices; Global Engagement Manager (GEM); base and long-haul communications -Information Assurance Systems 					

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Missile Defense Agency		DATE: February 2011	
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603904C: <i>MISSILE DEFENSE</i> <i>INTEGRATION & OPERATIONS CENTER</i> <i>(MDIOC)</i>	PROJECT MD22: <i>Missile Defense Integration and Operations Center (MDIOC)</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011
<ul style="list-style-type: none"> -Provide information assurance to MDA elements/components, BMDS elements, and Combatant Command (COCOM) and warfighter operational elements resident at the Missile Defense Integration and Operations Center (MDIOC) -Maintain DoD Information Assurance Certification and Accreditation Process (DIACAP) accreditation packages; manage the Information Assurance Vulnerability Assessment Program and provide technical assistance to Controls Validation Tests -Provide DoD Information Assurance Certification and Accreditation Process (DIACAP) package management; ensure timely submissions to Information Assurance Manager/Designated Accrediting Authority (IAM/DAA) for MDA Admin/General Services (GENSER) and Event Packages -Perform architecture design, engineering, and configuration management reviews for all assigned projects -Manage the Information Assurance Vulnerability Assessment and Communications Tasking Order remediation and implementation efforts to ensure Defense Information Systems Agency/Joint Task Force - Global Network Operations (DISA/JTF-GNO) directed compliance -Infrastructure Implementation Engineering -Implement intelligence hardware/software updates as required to support the Operations Support Center -Provide Missile Defense Integration and Operations Center (MDIOC) centric test event network related detailed designs in support of Test Events and real world operational events, provide implementation plans, update interface control documents and perform Change Control and Configuration Management services -Plan, design, test and operate the IT and communications technical architecture including Internet Protocol addressing schema, routing tables, switching policies, data paths, information assurance controls, fire wall configurations, application configurations, band width allocations for sub networks and eventual post event return to base line -Provide technical health and status monitoring, troubleshooting, and break/fix, IT/Communications support for each of the event architectures including critical asset identification, monitoring, Quality Assurance/Quality Control (QA/QC) seals with configuration management and job control -Implement final Defense Information Systems Agency - Global Information Grid (DISA GIG) Mission Assurance node configuration -Software Licenses, Services and Applications -Maintain critical software licensing and maintenance agreements to meet critical customer and legal requirements, enable continued software support necessary to maintain the directed computer network defense posture and ensure continued system operational availability 			

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Missile Defense Agency		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0603904C: MISSILE DEFENSE INTEGRATION & OPERATIONS CENTER (MDIOC)	PROJECT MD22: Missile Defense Integration and Operations Center (MDIOC)		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
-Plan/Design/Implement technical lifecycle, refresh, and standardization of Missile Defense Integration and Operations Center (MDIOC) print services -Implement Missile Defense Integration and Operations Center (MDIOC) web cam upgrade and technology refresh -Implement a consolidated MS Project Server and deliver as a web based service				
Title: Facilities and Maintenance Articles: Description: See Description Below FY 2010 Accomplishments: Funding for these FY 2010 accomplishments is reported in prior year Budget Project YX22 (\$18.413M)		- 0	18.743 0	19.056 0
-Utilities (Electrical, Gas, Sewer, Water, Steam, & Chilled Water) -Procured utility services through 50th AF Space Wing (Host Base) -Sustained utility infrastructure and delivery systems -Environmental, Safety & Occupational Health (ESOH) -Continued maintenance and updating of the program accident prevention plan -Provided required industrial safety training to facility services personnel -Procured and distributed personal protection equipment for contracted activities Ensured compliance with Hazardous Waste/Hazardous Material/Recycling, and National Environmental Policy Act (NEPA) programs -Conducted recurring safety and environmental audits -Facility Operations and Sustainment -Provided 24 hours a day, 7 days a week, 365 days a year, facility maintenance break/fix response for all facility systems (electrical; Heating, Ventilating, Air-conditioning; plumbing; locksmith) -Conducted over 1750 preventative maintenance inspections (PMIs) a month for all building systems -Facilities Repair & Sustainment				

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)				
		FY 2010	FY 2011	FY 2012
<ul style="list-style-type: none">-Upgraded facility electrical distribution system for dual redundancy (1100, 1200 & 2200 Quadrants)-Replaced failed Uninterruptable Power Supplies with new automated, high efficiencies technologies-Upgraded heating, ventilation and air conditioning system for the data center-Replaced basement air handling unit-Planned and built-out the 1201 Sector of Building 720-Retrofitted the fire detection and suppression system-Replaced obsolete 12,470 kVa switchgear components with new automated technology-Facilities Engineering -Conducted Management Process/Facility Installation Standard Audits-Provided risk management analysis and mitigation plans-Maintained infrastructure drawings/configuration management databases-Developed and documented facility long range planning/programming-Provided consulting services, preliminary designs and engineering/rough order of magnitude estimates for required infrastructure builds/changes-Missile Defense Integration and Operations Center (MDIOC) Operating Expenses -Leased General Services Administration (GSA) Vehicles and two commercial warehouses-Funded Schriever AFB Support Costs for Defense Red Switch Network (DRSN) Support, Local Dial Tone, Long Distance, Cable TV, & Grounds Maintenance-Facility Services -Provided custodial services for over 675,000 sq ft of floor space in Buildings 720/730-Provided Copy Center and Shuttle Services for over 2,000 personnel-Provided In/Out Processing & Personnel Moves-Cable Plant/Cubicle/Workstation -Installed facility connectivity cabling; provided trouble shooting and repair-Installed and reconfigured furniture and workstations-Independent Assessments -Conducted Arch Flash electrical safety analysis				

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2010	FY 2011	FY 2012
<ul style="list-style-type: none"> -Conducted an electrical coordination study of technical and non-technical services -Evaluated the design for an improved 12, 470 Volt Switch Gear <i>FY 2011 Plans:</i> <ul style="list-style-type: none"> -Utilities (Electrical, Gas, Sewer, Water, Steam, & Chilled Water) -Procure utility services through 50th AF Space Wing (Host Base) -Sustain utility infrastructure and delivery systems -Environmental, Safety & Occupational Health (ESOH) -Continue maintenance and updating of the program accident prevention plan -Provide required industrial safety training to facility services personnel -Procure and distribute personal protection equipment for contracted activities -Ensure compliance with Hazardous Waste/Hazardous Material/Recycling, and National Environmental Policy Act (NEPA) programs -Conduct recurring safety and environmental audits -Facilities Operations and Sustainment -Provide 24 hours a day, 7 days a week, 365 days a year, facility maintenance break/fix response for all facility systems (electrical; Heating, Ventilation, and Air Conditioning; plumbing; locksmith) -Conduct preventive maintenance inspections (PMIs) for all building systems -Facilities Repair & Sustainment -Upgrade facility electrical distribution system for dual redundancy (Phase II) and (Phase III) -Upgrade elevator (Phase II) -Replace roof on Building 730 -Replace Building 720 concrete seals (Phase I and II) -Upgrade property management software -Diversify chilled water system distribution -Facilities Engineering -Conduct Management Process/Facility Installation Standard Audits 					

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011
<ul style="list-style-type: none"> -Provide risk management analysis and mitigation plans -Maintain infrastructure drawings/configuration management databases -Develop and document facility long range planning/programming -Provide consulting services, preliminary designs and engineering/rough order of magnitude estimates for required infrastructure builds/changes -Missile Defense Integration and Operations Center (MDIOC) Operating Expenses -Lease General Services Administration (GSA) Vehicles and two commercial warehouses -Fund Schriever AFB Support Costs (Defense Red Switch Network (DRSN) Support, Local Dial Tone, Long Distance, & Cable TV) -Facility Services -Provide custodial services for over 675,000 sf of floor space in Bldgs 720/730 -Provide limited Copy Center and Shuttle Services for over 2,000 personnel -Provide In/Out Processing & Personnel Moves -Cable Plant/Cubicle/Workstation -Install facility connectivity cabling; provide trouble shooting and repair -Install and reconfigure furniture and workstations -Independent Assessments -Conduct root cause analysis and consulting services as required -Conduct an electrical coordination study of technical and non-technical services -Provide Quality Assurance Assessments <i>FY 2012 Plans:</i> -Utilities (Electrical, Gas, Sewer, Water, Steam, & Chilled Water) -Procure utility services through 50th AF Space Wing (Host Base) -Sustain utility infrastructure and delivery systems -Environmental, Safety & Occupational Health (ESOH) -Continue maintenance and updating of the program accident prevention plan 			

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APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>		R-1 ITEM NOMENCLATURE PE 0603904C: <i>MISSILE DEFENSE</i> <i>INTEGRATION & OPERATIONS CENTER</i> <i>(MDIOC)</i>		PROJECT MD22: <i>Missile Defense Integration and</i> <i>Operations Center (MDIOC)</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2010	FY 2011	FY 2012
<ul style="list-style-type: none"> -Provide required industrial safety training to facility services personnel -Procure and distribute personal protection equipment for contracted activities -Ensure compliance with Hazardous Waste/Hazardous Material/Recycling, and National Environmental Policy Act (NEPA) programs -Conduct recurring safety and environmental audits -Facilities Operations and Sustainment -Provide 24 hours a day, 7 days a week, 365 days a year, facility maintenance break/fix response for all facility systems (electrical; Heating, Ventilation, and Air Conditioning; plumbing; locksmith) extended from 15 minute response to two hour response time after normal duty hours -Conduct preventative maintenance inspections (PMIs) for all building systems -Facilities Repair & Sustainment -Provide emergency response and repair of infrastructure systems -Facilities Engineering -Conduct Management Process/Facility Installation Standard Audits -Provide risk management analysis and mitigation plans -Maintain infrastructure drawings/configuration management databases on a limited/minimum basis -Develop and document facility long range planning/programming -Provide consulting services, preliminary designs and engineering/rough order of magnitude estimates for required infrastructure builds/changes -Missile Defense Integration and Operations Center (MDIOC) Operating Expenses -Lease General Services Administration (GSA) Vehicles and two commercial warehouses -Fund Schriever AFB Support Costs (Defense Red Switch Network (DRSN) Support, Local Dial Tone, Long Distance, Cable TV, & Grounds Maintenance) -Facility Services -Provide custodial services for over 675,000 sf of floor space in Bldgs 720/730 -Provide limited Copy Center and Shuttle Services for over 2,000 personnel -Provide In/Out Processing & Personnel Moves 					

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
-Cable Plant/Cubicle/Workstation -Install facility connectivity cabling; provide trouble shooting and repair on a critical basis -Install and reconfigure furniture and workstations on a critical basis				
Title: Engineering and Event Services Description: See Description Below FY 2010 Accomplishments: Funding for these FY 2010 accomplishments is reported in prior year Budget Project YX22 (\$11.982M) -Mission Assurance and Event Execution Support -Implemented baseline technical control for all Missile Defense Integration and Operations Center (MDIOC) mission critical subsystems and services -Executed Missile Defense Integration and Operations Center (MDIOC) engineering management, quality assurance, configuration management and integration of all mission critical systems including: -Technical power distribution, Uninterruptable Power Supply Systems, major transformer substations, and circuit protection -Heating, Ventilation and Air Conditioning (HVAC), chilled water and steam systems -Secure and non-secure voice communications for BMDS Operations, major tests, and general constituencies -Local and wide area secure data networking environments 24 hours a day, 7 days a week, 365 days a year and network health and status tools -Ensured high availability and economic maintenance of integrated Missile Defense Integration and Operations Center (MDIOC) systems 24 hours a day, 7 days a week, 365 days a year for BMDS Operations support -Implemented `last mile` integration for BMDS Operations, BMDS test, Wargaming, exercise, training and general/administrative services -Executed comprehensive configuration baseline integrity freezes, periods of interest and work screening for all major tests and real world contingencies -Coordinated process improvement investments across all mission areas		Articles: - 0	11.531 0	8.526 0

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APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0603904C: MISSILE DEFENSE INTEGRATION & OPERATIONS CENTER (MDIOC)	PROJECT MD22: Missile Defense Integration and Operations Center (MDIOC)		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
<p>-Executed aggressive, proactive and tailored risk management to ensure integrity and persistent connectivity for all Missile Defense Integration and Operations Center (MDIOC) missions including:</p> <p>-Command, Control, Battle Management and Communications (C2MBC) incremental development and integration across the Integration Laboratory, Experimentation Laboratory (X-Lab), and the International Point of Presence</p> <p>-BMDS focused, system and distributed ground testing and Hardware-in-the-Loop execution</p> <p>-Modeling and Simulation program management; Digital Simulation Architecture Development; Validation, Verification & Accreditation</p> <p>-BMDS flight tests including Flight Test Ground-Based Midcourse Defense (FTG) execution; Flight Test - Aegis (FTM) and Flight Test - THAAD (FTT) planning, coordination and situational awareness. (For system flight tests directed from the MDIOC, ensure the protection of power, HVAC, and communications critical to test execution and control).</p> <p>-Joint Target Operations Center (JTOC) Target of Opportunity (TOO) and target tracking, coordination and visualization</p> <p>-BMDS Operational Support Center 24 hours a day, 7 days a week, 365 days a year for technical integration and implementation services</p> <p>-MDA Intelligence Support Cell and Threat Modeling Center services</p> <p>-BMDS Wargame, exercise and Distributed Multi-Echelon Training System (DMETS) training execution; Warfighter Support Center program integration</p> <p>-Missile Defense Space Experimentation Center (MDSEC) Satellite Operations, Ground System and experiment support operations</p> <p>-Enterprise Sensor Laboratory experimental, networking, and facility support and coordination</p> <p>-Ground-Based Midcourse Defense (GMD) Fire Control component-level operations, integration, testing, and training</p> <p>-Joint Early Warning Laboratory mission services and connectivity</p> <p>-Combatant Command (COCOM) operations work centers including the United States Northern Command (USNORTHCOM) Command, Control, Battle Management and Communications (C2BMC) Control Center (CCC), Army 100th Missile Defense Brigade, and United States Strategic Command's (USSTRATCOM's) Joint Functional Component Command-Integrated Missile Defense</p> <p>-MDA General Services Network and Operational Support Center and Network Communications Center</p> <p>-MDA Computer Emergency Response Team</p> <p>-24 Hours a Day, 7 Days a Week, 365 Days a Year Technical Watch Support</p> <p>-Provided on-site technical environment for BMDS Watch Officers, Safety Officers, and Information Assurance Officers to execute their duties 24 hours a day, 7 days a week, 365 days a year</p>				

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2010	FY 2011	FY 2012
<ul style="list-style-type: none"> -Implemented recall procedures to augment subject matter expertise availability during contingencies and major events -Executed tabletop exercises to asses readiness for Combatant Command (COCOM) Operational contingencies and major BMDS tests -Provided state change management and asset management technical support for the BMDS -Coordinated, reported and escalate critical information and BMDS test and operational event information to all Missile Defense Integration and Operations Center (MDIOC) technical and management staff to ensure rapid break/fix actions were executed -Joint National Integration Center (JNIC) Research and Development Contract (JRDC) Business & Finance Operations -Provided overarching contract and financial management support for all Joint National Integration Center (JNIC) Research and Development Contract (JRDC) integrated programs/projects -Provided engineering coordination, resource management, and event integration across all Missile Defense Integration and Operations Center (MDIOC) mission areas -Conducted continuous process improvement and implementation across all Joint National Integration Center (JNIC) Research and Development Contract (JRDC) execution and Missile Defense Integration and Operations Center (MDIOC) missions -Delivered integrated skill mix planning, coordination and workforce deployment across the dynamic spectrum of Missile Defense Integration and Operations Center (MDIOC) events -Executed integrated resource forecasting and de-confliction -Performed project management for discrete enterprise enhancements -Event Architecture & Engineering Design -Coordinated design and implementation of technical architectures for all major Missile Defense Integration and Operations Center (MDIOC) hosted BMDS tests, training and operations -Delivered technical documentation packages for all major BMDS flight tests, ground tests, training and Combatant Command (COCOM) exercise support -Led requirements coordination and technical architecture enhancements for BMDS wargame, exercise and training networks -Updated BMDS end-to-end Combatant Command (COCOM) deployed architecture as-built documentation reflecting new incremental content and deployments -Maintained a technical repository of BMDS Implementation Architectures for real-time operations and configuration management -Event and Personnel Support 					

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011
<p>-Provided quality event planning, coordination, logistics, security access and host support for all Missile Defense Integration and Operations Center (MDIOC) events and visitors</p> <p>-Delivered integrated service coordination for all Missile Defense Integration and Operations Center (MDIOC) event and protocol support including:</p> <ul style="list-style-type: none"> -Event Registration Website -Offsite event registration -Security processing, including clearance verification and badging -Coordination of group lodging -Arrangement/Coordination/Scheduling of Bus Transportation -Liaison between event Point of Contact (POC) and catering POC -Reserved, setup, and coordinated access for all primary shared Missile Defense Integration and Operations Center (MDIOC) conference rooms -Operated Audio Visual equipment during events -Prepared and conducted official ceremonies; coordinated and hosted Distinguished Visitor itineraries; obtained information disclosure approval; coordinated offsite dinners and socials -Special Program Support <p>-Developed and coordinated Cross-Domain Solution architectures for high priority BMDS testing and contingency deployments</p> <p>-Coordinated MDA leveraged involvement in multi-mission integration opportunities sponsored by external agencies and customers</p> <p>FY 2011 Plans:</p> <ul style="list-style-type: none"> -Mission Assurance and Event Execution Support <p>-Implement baseline technical control for all Missile Defense Integration and Operations Center (MDIOC) mission critical subsystems and services</p> <p>-Execute Missile Defense Integration and Operations Center (MDIOC) engineering management, quality assurance, configuration management and integration of all mission critical systems including:</p> <ul style="list-style-type: none"> -Technical power distribution, Uninterruptable Power Supply Systems, major transformer substations, and circuit protection -Heating, Ventilation and Air Conditioning, chilled water and steam systems 			

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2010	FY 2011	FY 2012
<ul style="list-style-type: none"> -Secure and non-secure voice communications for BMDS Operations, major tests, and general constituencies -Local and wide area secure data networking environments and network health and status tools 24 hours a day, 7 days a week, 365 days a year -Ensure high availability and maintenance de-confliction of integrated Missile Defense Integration and Operations Center (MDIOC) systems and BMDS Operations support 24 hours a day, 7 days a week, 365 days a year -Implement `last mile` integration for BMDS Operations, BMDS test, Wargaming, exercise, training and general/admin services -Execute comprehensive configuration baseline integrity freezes, periods of interest and work screening for all major tests and real world contingencies -Coordinate process improvement investments across all mission areas -Support the initial relocation of Space Tracking and Surveillance System (STSS) program office personnel from LAAFB to the MDIOC -Execute aggressive, proactive and tailored risk management to ensure integrity and persistent connectivity for all Missile Defense Integration and Operations Center (MDIOC) missions including: -Command, Control, Battle Management and Communications (C2MBC) incremental development and integration across the Integration Laboratory, Experimentation Laboratory (X-Lab), and the International Point of Presence -BMDS focused, system and distributed ground testing and Hardware-in-the-Loop (HWIL) execution -Modeling and Simulation program management; Digital Simulation Architecture Development; Validation, Verification & Accreditation -BMDS flight tests including Flight Test Ground-Based Midcourse Defense (FTG) execution; Flight Test - Aegis (FTM) and Flight Test - THAAD (FTT) planning, coordination and situational awareness. (For system flight tests directed from the MDIOC, ensure the protection of power, HVAC, and communications critical to test execution and control). -Joint Target Operations Center (JTOC) Target of Opportunity (TOO) and target tracking, coordination and visualization -BMDS Operational Support Center and technical integration and implementation services 24 hours a day, 7 days a week, 365 days a year -MDA Intelligence Support Cell and Threat Modeling Center services -BMDS Wargame, exercise and DMETS training execution; Warfighter Support Center program integration -Missile Defense Space Experimentation Center (MDSEC) Satellite Operations, Ground System and experiment support operations, and Airborne Infrared Radar (ABIR), and Space Tracking and Surveillance System (STSS) testing -Enterprise Sensor Laboratory experimental, networking and facility support and coordination -Ground-Based Midcourse Defense (GMD) Fire Control component-level operations, integration, testing, and training -Joint Early Warning Laboratory mission services and connectivity 					

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APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>		R-1 ITEM NOMENCLATURE PE 0603904C: <i>MISSILE DEFENSE</i> <i>INTEGRATION & OPERATIONS CENTER</i> <i>(MDIOC)</i>		PROJECT MD22: <i>Missile Defense Integration and</i> <i>Operations Center (MDIOC)</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2010	FY 2011	FY 2012
<ul style="list-style-type: none"> -Combatant Command (COCOM) operations work centers including the United States Northern Command (USNORTHCOM) Command, Control, Battle Management and Communications (C2BMC) Control Center (CCC), Army 100th Missile Defense Brigade, and United States Strategic Command's (USSTRATCOM's) Joint Functional Component Command-Integrated Missile Defense -MDA General Services Network and Operational Support Center and Network Communications Center -MDA Computer Emergency Response Team -24 Hours a Day, 7 Days a Week, 365 Days a Year, Technical Watch Support -Provide on-site technical environment for BMDS Watch Officers, Safety Officers, and Information Assurance Officers to execute their duties 24 hours a day, 7 days a week, 365 days a year -Implement recall procedures to augment subject matter expertise availability during contingencies and major events -Execute tabletop exercises to assess readiness for Combatant Command (COCOM) Operational contingencies and major BMDS tests -Provide state change management and asset management technical support for the BMDS -Coordinate, report and escalate critical information and BMDS test and operational event information to all Missile Defense Integration and Operations Center (MDIOC) technical and management staff to ensure rapid break/fix actions are executed -Joint National Integration Center (JNIC) Research and Development Contract (JRDC) Business & Finance Operations -Provide overarching contract and financial management support for all Joint National Integration Center (JNIC) Research and Development Contract (JRDC) integrated programs/projects -Provide engineering coordination, resource management, and event integration across all Missile Defense Integration and Operations Center (MDIOC) mission areas -Conduct continuous process improvement and implementation across all JRDC execution and Missile Defense Integration and Operations Center (MDIOC) missions -Deliver integrated skill mix planning, coordination and workforce deployment across the dynamic spectrum of Missile Defense Integration and Operations Center (MDIOC) events -Execute integrated resource forecasting and de-confliction -Perform project management for discrete enterprise enhancements -Event Architecture & Engineering Design 					

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Missile Defense Agency		DATE: February 2011	
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603904C: <i>MISSILE DEFENSE</i> <i>INTEGRATION & OPERATIONS CENTER</i> <i>(MDIOC)</i>	PROJECT MD22: <i>Missile Defense Integration and Operations Center (MDIOC)</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011
<ul style="list-style-type: none"> -Coordinate design and implementation of technical architectures for all major Missile Defense Integration and Operations Center (MDIOC) hosted BMDS tests, training and operations -Deliver technical documentation packages for all major BMDS flight tests, ground tests, training and Combatant Command (COCOM) exercise support -Lead requirements coordination and technical architecture enhancements for BMDS wargame, exercise and training networks -Update BMDS end-to-end Combatant Command (COCOM) deployed architecture as-built documentation reflecting new incremental content and deployments -Maintain a technical repository of BMDS Implementation Architectures for real-time operations and configuration management -Event and Personnel Support <ul style="list-style-type: none"> -Provide quality event planning, coordination, logistics, security access and host support for all Missile Defense Integration and Operations Center (MDIOC) events and visitors -Deliver integrated service coordination for all Missile Defense Integration and Operations Center (MDIOC) event and protocol support including: <ul style="list-style-type: none"> -Event Registration Website -Offsite event registration -Security processing, including clearance verification and badging -Coordination of group lodging -Arrangement/Coordination/Scheduling of Bus Transportation -Liaison between event Point of Contact (POC) and catering POC -Reserve, setup, and coordinate access for all primary shared Missile Defense Integration and Operations Center (MDIOC) conference rooms -Operate Audio Visual equipment during events -Prepare and conduct official ceremonies; coordinate and host Distinguished Visitor itineraries; obtain information disclosure approval; coordinate offsite dinners and socials -Special Program Support -Develop and coordinate Cross-Domain Solution architectures for high priority BMDS testing and contingency deployments -Coordinate MDA leveraged involvement in multi-mission integration opportunities sponsored by external agencies and customers <p>FY 2012 Plans:</p>			

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Missile Defense Agency			DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>		R-1 ITEM NOMENCLATURE PE 0603904C: <i>MISSILE DEFENSE</i> <i>INTEGRATION & OPERATIONS CENTER</i> <i>(MDIOC)</i>		PROJECT MD22: <i>Missile Defense Integration and</i> <i>Operations Center (MDIOC)</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2010	FY 2011	FY 2012
<p>-Mission Assurance and Event Execution Support</p> <p>-Implement baseline technical control for all Missile Defense Integration and Operations Center (MDIOC) mission critical subsystems and services</p> <p>-Execute Missile Defense Integration and Operations Center (MDIOC) engineering management, quality assurance, configuration management and integration of all mission critical systems including:</p> <p>-Technical power distribution, Uninterruptable Power Supply Systems, major transformer substations, and circuit protection</p> <p>-Heating, Ventilation and Air Conditioning, chilled water and steam systems</p> <p>-Secure and non-secure voice communications for BMDS Operations, major tests, and general constituencies</p> <p>-Local and wide area secure data networking environments and network health and status tools 24 hours a day, 7 days a week, 365 days a year</p> <p>-Ensure high availability of integrated Missile Defense Integration and Operations Center (MDIOC) systems and BMDS Operations support 24 hours a day, 7 days a week, 365 days a year</p> <p>-Implement 'last mile' integration for BMDS Operations, BMDS test, Wargaming, exercise, training and general/admin services</p> <p>-Execute comprehensive configuration baseline integrity freezes, periods of interest and work screening for all major tests and real world contingencies</p> <p>-Coordinate process improvement investments across all mission areas</p> <p>-Support the completion of the relocation of the Space Tracking and Surveillance System (STSS) program office to the MDIOC</p> <p>-Execute aggressive, proactive and tailored risk management to ensure integrity and persistent connectivity for all Missile Defense Integration and Operations Center (MDIOC) missions including:</p> <p>-Command, Control, Battle Management and Communications (C2MBC) incremental development and integration across the Integration Laboratory, Experimentation Laboratory (X-Lab), and the International Point of Presence</p> <p>-BMDS focused, system and distributed ground testing and Hardware-in-the-Loop (HWIL) execution</p> <p>-Modeling and Simulation program management; Digital Simulation Architecture Development; Validation, Verification & Accreditation</p> <p>-BMDS flight tests including Flight Test Ground-Based Midcourse Defense (FTG) execution; Flight Test - Aegis (FTM) and Flight Test - THAAD (FTT) planning, coordination and situational awareness. (For system flight tests directed from the MDIOC, ensure the protection of power, HVAC, and communications critical to test execution and control).</p> <p>-Joint Target Operations Center (JTOC) Target of Opportunity (TOO) and target tracking, coordination and visualization</p>					

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Missile Defense Agency		DATE: February 2011	
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603904C: <i>MISSILE DEFENSE</i> <i>INTEGRATION & OPERATIONS CENTER</i> <i>(MDIOC)</i>	PROJECT MD22: <i>Missile Defense Integration and</i> <i>Operations Center (MDIOC)</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011
<ul style="list-style-type: none"> -BMDS Operational Support Center and technical integration and implementation services 24 hours a day, 7 days a week, 365 days a year -MDA Intelligence Support Cell and Threat Modeling Center services -BMDS Wargame, exercise and DMETS training execution; Warfighter Support Center program integration -Missile Defense Space Experimentation Center (MDSEC) Satellite Operations, Ground System and experiment support operations, and Airborne Infrared Radar (ABIR), and Space Tracking and Surveillance System (STSS) testing -Enterprise Sensor Laboratory experimental, networking and facility support and coordination -Ground-Based Midcourse Defense (GMD) Fire Control component-level operations, integration, testing, and training -Joint Early Warning Laboratory mission services and connectivity -Combatant Command (COCOM) operations work centers including the United States Northern Command (USNORTHCOM) Command, Control, Battle Management and Communications (C2BMC) Control Center (CCC), Army 100th Missile Defense Brigade, and United States Strategic Command's (USSTRATCOM's) Joint Functional Component Command-Integrated Missile Defense -MDA General Services Network and Operational Support Center and Network Communications Center -MDA Computer Emergency Response Team -Technical Watch Support -Provide on-site technical environment for BMDS Watch Officers, Safety Officers, and Information Assurance Officers to execute their duties 8 hours a day, 5 days a week with a capability to surge to 24 hours a day, 7 days a week for contingency operations -Implement recall procedures to augment subject matter expertise availability during contingencies and major events -Execute tabletop exercises to assess readiness for Combatant Command (COCOM) Operational contingencies and major BMDS tests -Provide state change management and asset management technical support for the BMDS -Coordinate, report and escalate critical information and BMDS test and operational event information to all Missile Defense Integration and Operations Center (MDIOC) technical and management staff to ensure rapid break/fix actions are executed -Joint National Integration Center (JNIC) Research and Development Contract (JRDC) Business & Finance Operations -Provide overarching contract and financial management support for all Joint National Integration Center (JNIC) Research and Development Contract (JRDC) integrated programs/projects -Provide engineering coordination, resource management, and event integration across all Missile Defense Integration and Operations Center (MDIOC) mission areas 			

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Missile Defense Agency		DATE: February 2011	
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603904C: <i>MISSILE DEFENSE</i> <i>INTEGRATION & OPERATIONS CENTER</i> <i>(MDIOC)</i>	PROJECT MD22: <i>Missile Defense Integration and Operations Center (MDIOC)</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011
<ul style="list-style-type: none"> -Conduct continuous process improvement and implementation across all JRDC execution and Missile Defense Integration and Operations Center (MDIOC) missions -Deliver integrated skill mix planning, coordination and workforce deployment across the dynamic spectrum of Missile Defense Integration and Operations Center (MDIOC) events -Execute integrated resource forecasting and de-confliction -Perform project management for discrete enterprise enhancements -Event Architecture & Engineering Design -Coordinate design and implementation of technical architectures for all major Missile Defense Integration and Operations Center (MDIOC) hosted BMDS tests, training and operations -Deliver technical documentation packages for all major BMDS flight tests, ground tests, training and Combatant Command (COCOM) exercise support -Lead requirements coordination and technical architecture enhancements for BMDS wargame, exercise and training networks -Update BMDS end-to-end Combatant Command (COCOM) deployed architecture as-built documentation reflecting new incremental content and deployments -Maintain a technical repository of BMDS Implementation Architectures for real-time operations and configuration management -Event and Personnel Support -Provide quality event planning, coordination, logistics, security access and host support for all Missile Defense Integration and Operations Center (MDIOC) events and visitors -Deliver integrated service coordination for all Missile Defense Integration and Operations Center (MDIOC) event and protocol support including: <ul style="list-style-type: none"> -Event Registration Website -Offsite event registration -Security processing, including clearance verification and badging -Coordination of group lodging -Arrangement/Coordination/Scheduling of Bus Transportation -Liaison between event Point of Contact (POC) and catering POC -Reserve, setup, and coordinate access for all primary shared Missile Defense Integration and Operations Center (MDIOC) conference rooms 			

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Missile Defense Agency		DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0603904C: MISSILE DEFENSE INTEGRATION & OPERATIONS CENTER (MDIOC)	PROJECT MD22: Missile Defense Integration and Operations Center (MDIOC)		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
<div>-Operate Audio Visual equipment during events -Prepare and conduct official ceremonies; coordinate and host Distinguished Visitor itineraries; obtain information disclosure approval; coordinate offsite dinners and socials</div> <div>Title: Operations and Sustainment</div> <div>Articles:</div> <div>Description: See Description Below</div> <div>FY 2010 Accomplishments: Funding for these FY 2010 accomplishments is reported in prior year Budget Project YX22 (\$7.942M)</div> <div>-Government Civilian, Contract Support Services (CSS), Training, Travel, Federally Funded Research and Development Contract (FFRDC)</div> <div>-Funded Civilian, Contract Support Services (CSS), Federally Funded Research and Development Contract (FFRDC) positions supporting operations and sustainment of all MDIOC activities contributing to the mission execution platform</div> <div>-Funded Training and Travel</div> <div>FY 2011 Plans: -Government Civilian, Contract Support Services (CSS), Training, Travel, Federally Funded Research and Development Contract (FFRDC)</div> <div>-Fund Civilian, Contract Support Services (CSS) and Federally Funded Research and Development Contract (FFRDC) positions supporting operations and sustainment of all MDIOC activities contributing to the mission execution platform</div> <div>-Fund Training and Travel</div> <div>FY 2012 Plans: -Government Civilian, Contract Support Services (CSS), Training, Travel, Federally Funded Research and Development Contract (FFRDC)</div> <div>-Fund Civilian, Contract Support Services (CSS) and Federally Funded Research and Development Contract (FFRDC) positions supporting operations and sustainment of all MDIOC activities contributing to the mission execution platform</div> <div>-Fund Training and Travel</div>		- 0	8.231 0	6.038 0

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APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>		R-1 ITEM NOMENCLATURE PE 0603904C: <i>MISSILE DEFENSE</i> <i>INTEGRATION & OPERATIONS CENTER</i> (MDIOC)		PROJECT MD22: <i>Missile Defense Integration and</i> <i>Operations Center (MDIOC)</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2010	FY 2011	FY 2012
Defense Efficiency - Contractor Staff Support. As part of the Department of Defense reform agenda, reduces funds below the aggregate level reported in FY 2010 for controls that augment staff functions. (\$1.202 thousands)					
Title: C2BMC Test Beds			-	21.613	-
Articles:			0	0	0
Description: See Description Below					
FY 2010 Accomplishments: Funding for these FY 2010 accomplishments is reported in prior year Budget Project CX22 (\$19.793M)					
Maintained, sustained, and upgraded Missile Defense Integration and Operations Center (MDIOC) Command, Control, Battle Management and Communications (C2BMC) Testbed to support integration, test, training, and experimentation					
-Provided technical expertise to BMDS Command, Control, Battle Management and Communications (C2BMC) Early Warning Integration					
-Provided and test BMDS Command, Control, Battle Management and Communications (C2BMC)					
-Performed Operational Early Warning Anomaly Tracking and Analysis					
-Performed Operator/Warfighter theater Missile Warning (TMW) Exercise Data Analysis					
-Performed BMDS Early Warning test, integration and fielding					
-Provided in-theater Global Command and Communications System (GCCS) and technical expertise to the Combatant Command (COCOM) warfighters via the United States Strategic Command (USSTRATCOM) led Combatant Command (COCOM) Tier I health checks					
-Performed Joint Early Warning operational assessments and analysis					
-Developed Combatant Command (COCOM) Theater Missile Warning (TMW) architecture drawings					
-Continued to record data on all missile events broadcast over Theater Event System (TES)					
-Continued to populate and maintained database on all missile events recorded since Jan 2003					
-Performed United States Strategic Command (USSTRATCOM) Theater Missile Warning (TMW) Configuration Control Board (CCB) assessments of new systems for inclusion in Theater Missile Warning (TMW) Theater Event System (TES) Architecture					
-Provided Subject Matter Expertise to the United States Strategic Command (USSTRATCOM) Theater Missile Warning (TMW) Configuration Control Board (CCB) Engineering Subgroup					
-Performed testing and integration of Theater Missile Warning (TMW) producer improvement initiatives testing					

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APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603904C: <i>MISSILE DEFENSE</i> <i>INTEGRATION & OPERATIONS CENTER</i> <i>(MDIOC)</i>	PROJECT MD22: <i>Missile Defense Integration and</i> <i>Operations Center (MDIOC)</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011
<p>-Provided Subject Matter Expertise to Early Warning communications integration</p> <p>-Performed testing on new systems for inclusion into the Theater Missile Warning (TMW) architecture</p> <p>-Produced Early Warning Target of Opportunity (TOO) initial Quick Reports and Comparative Analysis Reports</p> <p>-Provided inputs concerning integration and testing of the Command, Control, Battle Management and Communications (C2BMC) Net Centric Architecture</p> <p>-Continued to populate the Early Warning Incident / Anomaly tracking database for the Theater Missile Warning (TMW) Configuration Control Board (CCB) and BMDS Early Warning Special Product Team (EW SPT) reporting and metrics tracking</p> <p>-Upgraded Joint Early Warning Laboratory (JEWL) hardware/software/communications</p> <p>-Performed Command, Control, Battle Management and Communications (C2BMC) display analysis</p> <p>-Continued to provide Early Warning-Special Product Team (EW-SPT) missile warning technical expertise for the COCOM warfighters</p> <p>FY 2011 Plans:</p> <p>The BMDS performance evaluation strategy is to develop models and simulations of the BMDS and compare their predictions to empirical data collected through comprehensive flight and ground testing to validate their accuracy, rather than physically testing all possible combinations of BMDS configurations, engagement conditions, and target phenomena. The BMDS test review determined how to validate our models and simulations so that our war fighting commanders consider employing the BMDS in ways other than originally planned or against threats unknown at this time.</p> <p>-Complete the transition the Missile Defense Integration and Operations Center (MDIOC) Command, Control, Battle Management and Communications (C2BMC) Testbed to support sustainment testing of C2BMC Spiral 6.4</p> <p>-Start the Command, Control, Battle Management and Communications (C2BMC) Testbed Test Environment transition to C2BMC Spiral 8.2</p> <p>-Plan, collect data, assess, examine, and report on MDA directed Command, Control, Battle Management and Communications (C2BMC) spiral integration testing</p> <p>-Support continuing integration of missile defense elements into the BMDS command and control structure</p> <p>-Support interoperability and integration of the BMDS program elements</p> <p>-Improve the operational realism of the system test architectures</p> <p>-Conduct a system test campaign across the architecture based on the Integrated Master Plan Test (IMPT) Schedule</p> <p>-Support the field testing of the European Deployment</p> <p>-Sustain the Command, Control, Battle Management and Communications (C2BMC) Components of the Distributed Multi-Echelon Distributed Training system (DMETS) in the conduct of BMDS-level wargames, exercises, and training</p>			

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APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>		R-1 ITEM NOMENCLATURE PE 0603904C: <i>MISSILE DEFENSE</i> <i>INTEGRATION & OPERATIONS CENTER</i> <i>(MDIOC)</i>		PROJECT MD22: <i>Missile Defense Integration and</i> <i>Operations Center (MDIOC)</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2010	FY 2011	FY 2012
<p>-Provide infrastructure, network, and troubleshooting support to:</p> <p>-C2BMC Control Center (CCC)</p> <p>-System Test and Operations Center (STOC)</p> <p>-BMDS Communications Network (BCN)</p> <p>-Parallel Staging Network (PSN)</p> <p>-BMDS Network Operations and Security Center (BNOSC)</p> <p>-Conduct Command, Control, Battle Management and Communications (C2BMC) Experimentation Laboratory (X-Lab) Events and Experimentation</p> <p>-Refine Command, Control, Battle Management and Communications (C2BMC) interfaces to BMDS Elements and Sensors</p> <p>-Complete BMD Overhead Persistent Infrared (OPIR) Architecture (BOA) performance assessments, integration, and testing</p> <p>-Conduct concept development for highly adaptive, highly secure, highly reliable Concurrent Test, Training and Operations (CTTO) Network Architectures</p> <p>-Conduct initial prototypes and associated operations with Concurrent Test, Training, and :Operations (CTTO) interfaces and architectures</p> <p>FY 2012 Plans: Plans captured in Project MD01, PE 0603896C</p>					
<p>Title: Joint Early Warning Laboratory (JEWL)</p> <p align="right">Articles:</p> <p>Description: See Description Below</p> <p>FY 2010 Accomplishments: Funding for these FY2010 accomplishments is reported in prior year Budget Project CX22 (\$2.149M)</p> <p>-Provided technical expertise to BMDS Command, Control, Battle Management and Communications (C2BMC) Early Warning Integration</p> <p>-Provided and test BMDS Command, Control, Battle Management and Communications (C2BMC)</p> <p>-Performed Operational Early Warning Anomaly Tracking and Analysis</p> <p>-Performed Operator/Warfighter theater Missile Warning (TMW) Exercise Data Analysis</p> <p>-Performed BMDS Early Warning test, integration and fielding</p>			- 0	2.190 0	- 0

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APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603904C: <i>MISSILE DEFENSE</i> <i>INTEGRATION & OPERATIONS CENTER</i> (MDIOC)	PROJECT MD22: <i>Missile Defense Integration and Operations Center (MDIOC)</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011
<p>-Provided in-theater Global Command and Communications System (GCCS) and radio technical expertise to the Combatant Command (COCOM) warfighters via the United States Strategic Command (USSTRATCOM) led Combatant Command (COCOM) Tier I health checks</p> <p>-Performed Joint Early Warning operational assessments and analysis</p> <p>-Developed Combatant Command (COCOM) Theater Missile Warning (TMW) architecture drawings</p> <p>-Continued to record data on all missile events broadcast over Theater Event System (TES)</p> <p>-Continued to populate and maintained database on all missile events recorded since Jan 2003</p> <p>-Performed United States Strategic Command (USSTRATCOM) Theater Missile Warning (TMW) Configuration Control Board (CCB) assessments of new systems for inclusion in Theater Missile Warning (TMW) Theater Event System (TES) Architecture</p> <p>-Provided Subject Matter Expertise to the United States Strategic Command (USSTRATCOM) Theater Missile Warning (TMW) Configuration Control Board (CCB) Engineering Subgroup</p> <p>-Performed testing and integration of Theater Missile Warning (TMW) producer improvement initiatives testing</p> <p>-Provided Subject Matter Expertise to Early Warning communications integration</p> <p>-Performed testing on new systems for inclusion into the Theater Missile Warning (TMW) architecture</p> <p>-Produced Early Warning Target of Opportunity (TOO) initial Quick Reports and Comparative Analysis Reports</p> <p>-Provided inputs concerning integration and testing of the Command, Control, Battle Management and Communications (C2BMC) Net Centric Architecture</p> <p>-Continued to populate the Early Warning Incident / Anomaly tracking database for the Theater Missile Warning (TMW) Configuration Control Board (CCB) and BMDS Early Warning Special Product Team (EW SPT) reporting and metrics tracking</p> <p>-Upgraded Joint Early Warning Laboratory (JEWL) hardware/software/communications</p> <p>-Performed Command, Control, Battle Management and Communications (C2BMC) display analysis</p> <p>-Continued to provide Joint Early Warning Laboratory (JEWL) technical expertise for BMDS Early Warning Special Product Team (EW SPT)</p> <p>FY 2011 Plans:</p> <p>As the USSTRATCOM designated facility for testing all changes or additions to the Theater Event System (TES) architecture, the Joint Early Warning Lab (JEWL) replicates all known theater Early Warning (EW) architecture and maintains a replay capability for fault isolation, anomaly identification, and can modify data to isolate anomalies. The JEWL provides timely analysis and comparisons of the legacy EW and BMD systems.</p> <p>-Perform BMDS Early Warning test, integration and fielding support</p> <p>-Perform Joint Early Warning operational assessments and support</p>			

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Missile Defense Agency		DATE: February 2011		
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
<p>-Record data on all missile events broadcast over Theater Event System (TES)</p> <p>-Maintain database on all missile events recorded since January 2003</p> <p>-Perform analysis pertaining to live events</p> <p>-Support testing and integration of Theater Missile Warning (TMW) and Integrated Air Missile Defense (IAMD) architecture improvements</p> <p>-Perform United States Strategic Command (USSTRATCOM) Configuration Control Board (CCB) assessments and technical evaluations of new systems for inclusion in Theater Missile Warning (TMW) Architecture</p> <p>-Conduct Theater Missile Warning (TMW) Health Checks to assist Combatant Command (COCOMs) in evaluating their missile warning architecture, and optimize their early warning coverage in conjunction with United States Strategic Command (USSTRATCOM)</p> <p>-Support the Global Command and Control System (GCCS) Theater Air and Missile Defense (TAMD) workgroup and sustainment of Theater Missile Warning (TMW) capabilities in Global Command and Control System (GCCS)</p> <p>-Maintain web-based documentation of Combatant Command (COCOM) Tier-1 sites Theater Missile Warning (TMW) equipment configuration</p> <p>-Provide subject-matter expertise in support of BMDS and Theater Missile Warning (TMW) architecture convergence</p> <p>-Perform testing on new systems for inclusion into the Theater Missile Warning (TMW) architecture</p> <p>-Perform Early Warning Target of Opportunity (TOO) initial quick reports and comparative analysis</p> <p>-Perform Operational Early Warning Anomaly Tracking and Analysis</p> <p>-Provide BMDS Command, Control, Battle Management and Communications (C2BMC) Early Warning Integration support</p> <p>-Perform Operator/Warfighter Theater Missile Warning (TMW) Exercise Data Analysis</p> <p>-Provide and chair United States Strategic Command (USSTRATCOM) Configuration Control Board (CCB) Engineering Subgroup</p> <p>-Establish the Early Warning Incident / Anomaly tracking database in support of the Theater Missile Warning (TMW) Configuration Control Board (CCB) and BMDS Early Warning Special Product Team (EW SPT) reporting and metrics tracking</p> <p>-Upgrade Joint Early Warning Laboratory (JEWL) hardware/software/communications</p> <p>-Provide Command, Control, Battle Management and Communications (C2BMC) display analysis for inclusion in the BMDS Integrated Tactical Warning/Attack Assessment (ITWAA) Theater Event System (TES) Comparison Reports</p> <p>-Continue to provide Early Warning-Special Product Team (EW-SPT) missile warning technical expertise for the COCOM warfighters</p> <p>FY 2012 Plans: Plans captured in Project MD01, PE 0603896C</p>				
Title: Modeling & Simulation Systems Engineering and Integration		-	1.744	1.686

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011	FY 2012
Articles:		0	0	0
Description: See Description Below				
FY 2010 Accomplishments: Activity did not exist in the MDIOC PE FY 2010				
FY 2011 Plans: Conduct alternative concepts, technical Feasibility Analysis, and preliminary trade studies. These include concept definition for Airborne Infrared Radar (ABIR) and technical assessment of unique high-performance design options for Standard Missile (SM)-3 Block IIB. Provide analysis support to the Chief Architect (Architecture Trade Studies, Initiatives by Office of the Secretary of Defense (OSD), Joint Chiefs of Staff (JCS), Combatant Command (COCOMs), Special Programs and other Special Studies. -Continue planning and coordination for real-time track demonstrations using a Unmanned Aerial Vehicle (UAV) (associated with scheduled BMDS test events) using an existing airborne platform -Start design work on high-performance design options for Standard Missile (SM)-3 Block IIB -Continue to support assigned Office of the Secretary of Defense (OSD), Joint Chiefs of Staff (JCS), Combatant Command (COCOMs) and other special studies				
FY 2012 Plans: Conduct alternative concepts, technical Feasibility Analysis, and preliminary trade studies. These include concept definition for Airborne Infrared Radar (ABIR) and technical assessment of unique high-performance design options for Standard Missile (SM)-3 Block IIB. Provide analysis support to the Chief Architect (Architecture Trade Studies, Initiatives by Office of the Secretary of Defense (OSD), Joint Chiefs of Staff (JCS), Combatant Command (COCOMs), Special Programs, and other Special Studies. -Continue planning and coordination for real-time track demonstrations using a Unmanned Aerial Vehicle (UAV) (associated with scheduled BMDS test events) using an existing airborne platform -Continue design work on high-performance design options for SM-3 Block IIB -Support pre-mission analysis involving Space Tracking and Surveillance System (STSS) with Aegis testing -Continue to support assigned Office of the Secretary of Defense (OSD), Joint Chiefs of Staff (JCS), Combatant Command (COCOMs) and other special studies				
Title: IT Infrastructure Recapitalization		-	-	10.000
Articles:		0	0	0

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Missile Defense Agency			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0603904C: MISSILE DEFENSE INTEGRATION & OPERATIONS CENTER (MDIOC)	PROJECT MD22: Missile Defense Integration and Operations Center (MDIOC)	

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Description: See Description Below FY 2010 Accomplishments: Activity did not exist in the MDIOC PE FY 2010 FY 2011 Plans: Activity did not exist in the MDIOC PE FY 2011 FY 2012 Plans: -Invest \$10 million in IT Recapitalization to include desk tops, laptops, thin clients, servers, routers, and switches. Approximately ten percent of the 12,850 desktop computers, laptops, and thin client devices within the Missile Defense Agency are older than five years compared to an industry refresh standard of three years. The Missile Defense Agency requires \$42 million for recapitalization of obsolete desktop systems by year 2012. Continuing to extend refresh rates is increasing the risk for downtime and increased labor requirements to sustain obsolete systems.			
Accomplishments/Planned Programs Subtotals	-	83.298	66.484

C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012 Base</u>	<u>FY 2012 OCO</u>	<u>FY 2012 Total</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• 0603175C: Ballistic Missile Defense Technology	164.670	132.220	75.003		75.003	103.844	111.712	164.378	170.851	Continuing	Continuing
• 0603882C: Ballistic Missile Defense Mid-Course Segment	1,022.019	1,346.181	1,161.001		1,161.001	1,040.949	925.943	856.839	875.969	Continuing	Continuing
• 0603888C: Ballistic Missile Defense Test and Targets	737.863	1,113.425	1,071.039		1,071.039	898.680	790.906	787.113	878.215	Continuing	Continuing
• 0603890C: Ballistic Missile Defense Enabling Programs	355.870	402.769	373.563		373.563	331.203	314.193	336.749	346.560	Continuing	Continuing
• 0603893C: SPACE TRACKING & SURVEILLANCE SYSTEM	148.506	112.678	96.353		96.353	53.577	47.592	32.289	34.308	Continuing	Continuing
• 0603895C: BMD SYSTEM SPACE PROGRAM	11.913	10.942	7.951		7.951	6.781	6.465	6.496	6.915	Continuing	Continuing
• 0603896C: BMD C2BMC	327.074	342.625	364.103		364.103	330.337	353.081	338.835	304.217	Continuing	Continuing
	58.105	68.726	41.225		41.225	58.089	55.961	56.479	60.684	Continuing	Continuing

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Missile Defense Agency							DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>			R-1 ITEM NOMENCLATURE PE 0603904C: <i>MISSILE DEFENSE</i> <i>INTEGRATION & OPERATIONS CENTER</i> <i>(MDIOC)</i>			PROJECT MD22: <i>Missile Defense Integration and</i> <i>Operations Center (MDIOC)</i>	

C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u> <u>Base</u>	<u>FY 2012</u> <u>OCO</u>	<u>FY 2012</u> <u>Total</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 0603898C: <i>BMD JOINT</i> <i>WARFIGHTER SUPPORT</i>											

D. Acquisition Strategy

The Joint National Integration Center Research and Development Contract is the major performing integrated contract that is competed periodically.

The acquisition strategy for Missile Defense Integration and Operation Center (MDIOC) mission execution is to employ a contract to perform designated integration and sustainment tasks to conduct Ballistic Missile Defense System (BMDS) Research, Development, Test and Evaluation (RDT&E). The Missile Defense Integration and Operations Center (MDIOC) is operated by missile defense subject matter experts (SME) composed of Government military and civilian personnel, Federally Funded Research and Development Center (FFRDC), Missile Defense Integration and Operations Center (MDIOC) Technical Advisory and Assistance Services, and major defense contractors.

E. Performance Metrics

NA

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Missile Defense Agency										DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE				PROJECT					
0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P)				PE 0603904C: MISSILE DEFENSE INTEGRATION & OPERATIONS CENTER (MDIOC)				MD22: Missile Defense Integration and Operations Center (MDIOC)					
Product Development (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-	0.000	0.000	0.000
Support (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Infrastructure Systems and Support MDIOC NG MD22	C/CPAF	MDIOC/Northrop Grumman Mission Systems:Colorado Springs, CO	20.185	19.246	Nov 2010	21.178	Nov 2011	-		21.178	Continuing	Continuing	Continuing
Facilities and Maintenance MDIOC NG MD22	C/CPAF	MDIOC/Northrop Grumman Mission Systems:Colorado Springs, CO	15.478	14.997	Nov 2010	15.614	Nov 2011	-		15.614	Continuing	Continuing	Continuing
Facilities and Maintenance MDIOC GSA / Leases / Calibration MD22	MIPR	Various (GSA, 50th Space Wing, Warehouses):Colorado Springs, CO	0.835	1.572	Dec 2010	1.182	Dec 2011	-		1.182	2.754	6.343	Continuing
Facilities and Maintenance MDIOC Utilities MD22	MIPR	50th Space Wing:Schriever AFB, CO	2.100	2.174	Oct 2010	2.260	Oct 2011	-		2.260	Continuing	Continuing	Continuing
Engineering and Event Services MDIOC NG MD22	C/CPAF	MDIOC/Northrop Grumman Mission Systems:Colorado Springs, CO	11.982	11.531	Oct 2010	8.526	Oct 2011	-		8.526	Continuing	Continuing	Continuing
Operations and Sustainment Ops & Sustainment MD22	Allot	MDIOC:Colorado Springs, CO	4.384	4.370	Oct 2010	3.076	Oct 2011	-		3.076	Continuing	Continuing	Continuing
Operations and Sustainment CSS/A&AS MD22	C/FFP	SRS/ManTech/ MiDAESS Multi:Colorado Springs, CO	2.742	2.939	Oct 2010	2.463	Oct 2011	-		2.463	6.502	14.646	Continuing
	FFRDC		0.693	0.727	Oct 2010	0.371	Oct 2011	-		0.371	1.098	2.889	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Missile Defense Agency										DATE: February 2011	
APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603904C: MISSILE DEFENSE INTEGRATION & OPERATIONS CENTER (MDIOC)				PROJECT MD22: Missile Defense Integration and Operations Center (MDIOC)			

Support (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Operations and Sustainment FFRDC MD22		MDIOC:Colorado Springs, CO											
Operations and Sustainment Travel and Training MD22	Allot	MDIOC:Colorado Springs, CO	0.123	0.195	Oct 2010	0.128	Oct 2011	-		0.128	0.323	0.769	Continuing
Modeling & Simulation Systems Engineering and Integration BMDs Architecture MD22	C/CPAF	MDIOC/Northrop Grumman Mission Systems:Colorado Springs, CO	-	1.744	Oct 2010	1.686	Oct 2011	-		1.686	3.537	6.967	Continuing
IT Infrastructure Recapitalization Information Technology MD22	C/CPAF	MDIOC/Northrop Grumman Mission Systems/:Colorado Springs, CO	-	-		10.000	Jan 2012	-		10.000	Continuing	Continuing	Continuing
Subtotal			58.522	59.495		66.484		-		66.484			

Remarks

Funds for utilities and base communications or specified in the Inter-service Support Agreement with the 50th Space Wing. In addition, the Missile Defense Integration and Operations Center (MDIOC) provides Federally Funded Research and Development Center (FFRDC) and Technical Advisory and Assistance Services employees, for MDIOC operations and oversight of the Joint Research and Development Contractor (JRDC), as well as funding for JRDC work as required by the government.

FY 2012 IT Infrastructure Recapitalization did not exist in FY 2010 and FY 2011; Invest \$10 million in IT Recapitalization to include desk tops, laptops, thin clients, servers, routers, and switches. Approximately ten percent of the 12,850 desktop computers, laptops, and thin client devices within the Missile Defense Agency are older than five years compared to an industry refresh standard of three years. The Missile Defense Agency requires \$42 million for recapitalization of obsolete desktop systems by year 2012. Continuing to extend refresh rates is increasing the risk for downtime and increased labor requirements to sustain obsolete systems.

Test and Evaluation (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
C2BMC Test Beds C2BMC Testbed - 1 MD22	C/FFP	Mantech/ MiDAESS:Colorado Springs, CO	17.661	1.664	Oct 2010	-		-		-	Continuing	Continuing	Continuing
	FFRDC		0.815	0.900	Oct 2010	-		-		-	Continuing	Continuing	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Missile Defense Agency **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0603904C: MISSILE DEFENSE INTEGRATION & OPERATIONS CENTER (MDIOC)	PROJECT MD22: Missile Defense Integration and Operations Center (MDIOC)
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Test and Evaluation (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
C2BMC Test Beds C2BMC Testbed - 2 MD22		IDA:Colorado Springs, CO											
C2BMC Test Beds BMDS Level Testing MD22	C/CPAF	Northrop Grumman Mission Systems:Colorado Springs, CO	1.317	19.049	Oct 2010	-		-		-	Continuing	Continuing	Continuing
Joint Early Warning Laboratory (JEWL) JEWL MD22	C/CPAF	MULTI:Colorado Springs, CO	2.149	2.190	Oct 2010	-		-		-	Continuing	Continuing	Continuing
Subtotal			21.942	23.803		-		-		-			

Remarks

FY 2012 Plans captured in Project MD01, PE 0603896C

Management Services (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-	0.000	0.000	0.000
			Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			80.464	83.298		66.484		-		66.484			

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Missile Defense Agency		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603904C: <i>MISSILE DEFENSE INTEGRATION & OPERATIONS CENTER (MDIOC)</i>	PROJECT MD22: <i>Missile Defense Integration and Operations Center (MDIOC)</i>

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Missile Defense Agency		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603904C: <i>MISSILE DEFENSE INTEGRATION & OPERATIONS CENTER (MDIOC)</i>	PROJECT MD22: <i>Missile Defense Integration and Operations Center (MDIOC)</i>

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Missile Defense Agency		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603904C: <i>MISSILE DEFENSE INTEGRATION & OPERATIONS CENTER (MDIOC)</i>	PROJECT MD22: <i>Missile Defense Integration and Operations Center (MDIOC)</i>

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Missile Defense Agency		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603904C: <i>MISSILE DEFENSE INTEGRATION & OPERATIONS CENTER (MDIOC)</i>	PROJECT MD22: <i>Missile Defense Integration and Operations Center (MDIOC)</i>

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Missile Defense Agency		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603904C: <i>MISSILE DEFENSE</i> <i>INTEGRATION & OPERATIONS CENTER</i> <i>(MDIOC)</i>	PROJECT MD22: <i>Missile Defense Integration and</i> <i>Operations Center (MDIOC)</i>

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Missile Defense Agency		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0603904C: MISSILE DEFENSE INTEGRATION & OPERATIONS CENTER (MDIOC)	PROJECT MD22: Missile Defense Integration and Operations Center (MDIOC)

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Missile Defense Agency		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603904C: <i>MISSILE DEFENSE INTEGRATION & OPERATIONS CENTER (MDIOC)</i>	PROJECT MD22: <i>Missile Defense Integration and Operations Center (MDIOC)</i>

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Missile Defense Agency		DATE: February 2011
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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Missile Defense Agency		DATE: February 2011
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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Missile Defense Agency		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603904C: <i>MISSILE DEFENSE INTEGRATION & OPERATIONS CENTER (MDIOC)</i>	PROJECT MD22: <i>Missile Defense Integration and Operations Center (MDIOC)</i>

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Missile Defense Agency		DATE: February 2011
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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Missile Defense Agency		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603904C: <i>MISSILE DEFENSE INTEGRATION & OPERATIONS CENTER (MDIOC)</i>	PROJECT MD22: <i>Missile Defense Integration and Operations Center (MDIOC)</i>

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Missile Defense Agency			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603904C: <i>MISSILE DEFENSE</i> <i>INTEGRATION & OPERATIONS CENTER</i> (MDIOC)	PROJECT MD22: <i>Missile Defense Integration and</i> <i>Operations Center (MDIOC)</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
ATM-48 (Patriot Intercept Flight Test)	1	2010	1	2010
Air and Missile Defense Exercise	1	2010	1	2010
BMDs Network Operations and Security Center Build 1Q FY10	1	2010	1	2010
FCE-C Distributed (Regional Distributed Contingency Test)	1	2010	1	2010
FCE-C HWIL (Regional HWIL Contingency Test)	1	2010	1	2010
FTT-11 (THAAD Intercept Flight Test)	1	2010	1	2010
FTX-06 E2 (Aegis Simulated Intercept Flight Test)	1	2010	1	2010
FTX-06 E3 (Aegis Simulated Intercept Flight Test)	1	2010	1	2010
FTX-06 E4 (Aegis Simulated Intercept Flight Test)	1	2010	1	2010
GEM COOP FY10 Q1- Q2	1	2010	2	2010
JFTM-03 E1 (Japanese Cooperative Aegis Track Ex/US Sim Engagement)	1	2010	1	2010
JFTM-03 E2 (Japanese Cooperative Aegis Track Ex/US Sim Engagement)	1	2010	1	2010
Spiral 6.4 BMD Overhead Persistent IR March (BOA) Capability Q1-2 FY10	1	2010	2	2010
Spiral 6.4C2 Testing FY10 Q1 - Q3	1	2010	3	2010
Uninterruptible Power Supply Replacement Install-1Q2010-3Q2010	1	2010	3	2010
X-Lab Facility Modernization Q1 FY10	1	2010	1	2010
CCC Facility Upgrade 2Q FY10	2	2010	2	2010
DMETS Training Event Upgrades Q2-3 FY10	2	2010	3	2010
Foreign Exercise - 2Q2010	2	2010	2	2010
GTX-04a (Regional Focused HWIL Test)	2	2010	2	2010
IPOP Lab Build Out Q2-3 FY10	2	2010	3	2010
Joint Project Optic Windmill (JPOW)	2	2010	2	2010

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Missile Defense Agency			DATE: February 2011
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Events	Start		End	
	Quarter	Year	Quarter	Year
Test Assessment 10	2	2010	2	2010
Austere Challenge	3	2010	3	2010
BVT-01 (EC 2-Stage Booster Interceptor Flight Test)	3	2010	3	2010
Eagle Resolve	3	2010	3	2010
FTX-07 (GT-200) (Aegis Glory Trip TOO)	3	2010	3	2010
FTX-08 (GT-201)	3	2010	3	2010
GT-200 (Glory Trip)	3	2010	3	2010
Key Resolve 10	3	2010	3	2010
P2RF-39-T (BVT-01)	3	2010	3	2010
X-Lab Global Engagement Manager (GEM) Q3 FY10	3	2010	3	2010
X-Lab Global Engagement Manager (GEM) Q4 FY10	4	2010	4	2010
DMETS Spiral 6.4 COCOM Q4 FY10	4	2010	4	2010
DMETS Spiral 6.4 Global Engagement Manager (GEM) #2 Q4 FY10	4	2010	4	2010
Spiral 6.4C2 Testing FY10 Q4	4	2010	4	2010
FTX-07 (GT-202) (ABL Glory Trip TOO)	4	2010	4	2010
Recapitalization AF Tenant Space 1201 Ph 1 & 2 - 4Q2010	4	2010	4	2010
Recapitalization AF Tenant Space 1201 Ph 2 Q1	1	2011	1	2011
Electrical Power Distribution Upgrade PhII Q1,Q2	1	2011	2	2011
Recapitalization AF Tenant Space 1201 Ph 2 Q2	2	2011	2	2011
Electrical Power Distribution Upgrade PhII Q3,Q4	3	2011	4	2011
Electrical Power Distribution Upgrade PhIII Q1,Q2	1	2013	2	2013
Design, procure, and implement additional data storage capacity	2	2014	2	2014
Electrical Power Distribution Upgrade PhIII Q3,Q4	3	2014	4	2014

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Missile Defense Agency			DATE: February 2011
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Events	Start		End	
	Quarter	Year	Quarter	Year
Replace Roof, Bldg 730	1	2011	1	2011
Emergency Lighting System Replacement	3	2013	3	2013
Electrical Power Distribution Upgrade PhIV Q1,Q2	1	2014	2	2014
Electrical Power Distribution Upgrade PhIV Q3,Q4	3	2015	4	2015
Install Restricted Area Access Telephone System	3	2014	3	2014
Electrical Power Distribution Upgrade PhV Q1,Q2	1	2015	2	2015
Electrical Power Distribution Upgrade PhV Q3,Q4	3	2015	4	2015
Replace Elevators	2	2015	3	2015
System Test (ST) (C2BMC Suite for Ground Test) - 1 Spiral 6.4 Upgrade Q1-Q3	1	2011	3	2011
Ground Test Spiral 6.4 BMD Overhead Persistent IR (BOA) Node Q1	1	2011	1	2011
Vigilant Shield	1	2010	1	2010
Vigilant Shield 11	1	2011	1	2011
Vigilant Shield 12	1	2012	1	2012
Vigilant Shield 13	1	2013	1	2013
Vigilant Shield 14	1	2014	1	2014
Vigilant Shield 15	1	2015	1	2015
Global Defender Ex06	3	2015	3	2015
Keen Edge 10 -1Q 2010	1	2010	1	2010
Keen Edge 10 - 2Q 2010	2	2010	2	2010
Keen Edge Q1	1	2012	1	2012
Nimble Titan 10	3	2010	3	2010
Nimble Titan	2	2011	2	2011
Nimble Titan Q3	3	2011	3	2011

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Missile Defense Agency			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603904C: <i>MISSILE DEFENSE</i> <i>INTEGRATION & OPERATIONS CENTER</i> <i>(MDIOC)</i>	PROJECT MD22: <i>Missile Defense Integration and</i> <i>Operations Center (MDIOC)</i>	

Events	Start		End	
	Quarter	Year	Quarter	Year
Terminal Fury	3	2010	3	2010
Terminal Fury 11	2	2011	2	2011
Terminal Fury 12	3	2012	3	2012
Terminal Fury 13	3	2013	3	2013
Terminal Fury 14	3	2014	3	2014
Terminal Fury 15	3	2015	3	2015
Eagle Resolve 12	2	2012	2	2012
Assured Response 04X Q1 FY11	1	2011	1	2011
Assured Response 04d	2	2011	2	2011
Assured Response 06a	2	2015	2	2015
Global Thunder	3	2010	3	2010
Global Thunder 11	1	2011	1	2011
Global Thunder 12	1	2012	1	2012
Global Thunder 13	1	2013	1	2013
Global Thunder 14	2	2014	2	2014
Global Thunder 15	1	2015	1	2015
Global Thunder 16	2	2016	2	2016
BMDS Wargame Q1	1	2012	1	2012
Global Lightning 10	1	2010	1	2010
Global Lightening 11	3	2011	3	2011
Global Lightening 12	3	2012	3	2012
Global Lightening 13	3	2013	3	2013
Global Lightening 14	3	2014	3	2014

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Missile Defense Agency			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603904C: <i>MISSILE DEFENSE</i> <i>INTEGRATION & OPERATIONS CENTER</i> <i>(MDIOC)</i>	PROJECT MD22: <i>Missile Defense Integration and</i> <i>Operations Center (MDIOC)</i>	

Events	Start		End	
	Quarter	Year	Quarter	Year
Global Lightning 15	2	2015	2	2015
Global Defender Ex 04	4	2012	4	2012
GTD-04b (System Ground Test)	2	2011	2	2011
GTI-04d (System Ground Test)	3	2011	3	2011
TA-04 Technical Assessment 04	4	2011	4	2011
GTX-04e (System Ground Test)	1	2012	1	2012
GTI-04e (VV&A) (System Ground Test)	1	2013	1	2013
GTD-04e (VV&A) (System Ground Test)	2	2013	2	2013
GTI-04e (DT (System Ground Test)	3	2013	3	2013
GTI-04e (OT) (System Ground Test)	4	2013	4	2013
PA-04 Performance Assessment 04	3	2013	3	2013
GTD-04e (DT) (System Ground Test)	4	2013	4	2013
GTD-04e (OT) (System Ground Test)	4	2013	4	2013
GTX-06a Focused Regional Ground Test Event	4	2013	4	2013
Warfighter TP 04 Warfighter Trial Period 04 (System Ground Test)	1	2014	1	2014
GTX-06b (Focused Strategic Ground Test)	2	2014	2	2014
GTI-06 (VV&A) (Full BMDS HWIL Test) (System Ground Test)	4	2014	4	2014
GTD-06 (VV&A) (System Ground Test)	3	2015	3	2015
GTI-06 (DT) (Full BMDS HWIL Event) (System Ground Test)	2	2015	2	2015
GTI-06 (OT) (System Ground Test)	2	2015	2	2015
GT-07 (System Ground Test)	4	2015	4	2015
GTD-06 (DT) (System Ground Test) (System Ground Test)	3	2015	3	2015
GTD-06 (OT) (System Ground Test)	3	2015	3	2015

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Missile Defense Agency			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603904C: <i>MISSILE DEFENSE</i> <i>INTEGRATION & OPERATIONS CENTER</i> <i>(MDIOC)</i>	PROJECT MD22: <i>Missile Defense Integration and</i> <i>Operations Center (MDIOC)</i>	

Events	Start		End	
	Quarter	Year	Quarter	Year
PA-06 Performance Assessment 06	4	2015	4	2015
Warfighter TP 06 (System Ground Test)	2	2016	2	2016
FTG-06a (GM Intercept Test Flight)	1	2011	1	2011
JFTM-04 E1, E2, E3 (Aegis Simulated Intercept Flight Test)	1	2011	1	2011
USFT-4 (Arrow Intercept Test Flight)	1	2011	1	2011
Blue Sparrow-2 (Arrow Flight Test)	2	2011	2	2011
FTM-16 (Aegis Flight Test) E1(Simulated Intercept), E2 (Intercept)	2	2011	2	2011
FTP-04 (PATRIOT Flight Test)	2	2011	2	2011
FTT-24 (THAAD Intercept Flight Test)	2	2011	2	2011
FTX-11 (USAF Glory Trip 203 Flight Test)	2	2011	2	2011
FTX-17 (Air Launched Target Return to Flight - Flight Test)	2	2011	2	2011
FTM-15 (Aegis Flight Test)	3	2011	3	2011
FTT-12 (THAAD Intercept Flight Test)	4	2011	4	2011
AST-14 (Israeli Cooperative Intercept Flight Test)	1	2012	1	2012
FTM-19 E2 (Aegis Intercept Flight Test)	1	2012	1	2012
FTM-20 E2 (Aegis Intercept Flight Test)	1	2012	1	2012
FTG-08 (GMD Intercept Flight Test)	2	2012	2	2012
FTM-22 E2 (Aegis Intercept Flight Test)	3	2012	3	2012
FTM-23 (Aegis Intercept Flight Test)	3	2012	3	2012
FTT-13 (THAAD Intercept Flight Test)	3	2012	3	2012
FTO-01 (Aegis/THAAD/Patriot Multiple Engagement Flight Test)	4	2012	4	2012
FTM-21 E1 (Aegis Flight Test) E1 (Simulated Intercept), E2 (Simulated Intercept), E3 (Intercept)	1	2013	1	2013
FTX-10 (Cobra Dane Tracking Test)	1	2013	1	2013

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Missile Defense Agency **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603904C: <i>MISSILE DEFENSE</i> <i>INTEGRATION & OPERATIONS CENTER</i> <i>(MDIOC)</i>	PROJECT MD22: <i>Missile Defense Integration and</i> <i>Operations Center (MDIOC)</i>
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Events	Start		End	
	Quarter	Year	Quarter	Year
FTT-15 (THAAD Intercept Flight Test)	2	2013	2	2013
AST-15 (Israeli Cooperative Intercept Flight Test)	3	2013	3	2013
FTM-19 E1 (Aegis Simulated Intercept Flight Test)	3	2013	3	2013
AACTV-01 E1, E2 (Aegis Ashore Flight Test)	4	2013	4	2013
FTG-13 (GM Intercept Flight Test)	4	2013	4	2013
FTM-20 E1 (Aegis Simulated Intercept Flight Test)	4	2013	4	2013
DMETS Training Event Upgrades Q1 FY11	1	2011	1	2011
DMETS Spiral 6.4 Global Engagement Manager (GEM) #2 Q1 FY11	1	2011	1	2011
Spiral 6.4C2 Testing FY11 Q1 - Q2	1	2011	2	2011
FTT-16 (THAAD Intercept Flight Test)	4	2013	4	2013
FTX-12 (UEWR Tracking Test Flight Test)	4	2013	4	2013
FTX-14 (Aegis Simulated Intercept Flight Test)	1	2014	1	2014
SCDPTV-1 (Aegis Flight Test)	1	2014	1	2014
AST-16 (Israeli Cooperative Intercept Flight Test)	2	2014	2	2014
FTT-17 (THAAD Intercept Flight Test)	2	2014	2	2014
SCDCTV-1 (Aegis Flight Test)	2	2014	2	2014
AAFTM-01 E1 (Aegis Ashore Intercept Flight Test)	3	2014	3	2014
AAFTM-01 E2 (Aegis Ashore Intercept Flight Test)	3	2014	3	2014
SCDCTV-2 (Aegis Flight Test)	3	2014	3	2014
FTG-11 (GMD Intercept Flight Test)	4	2014	4	2014
FTM-24 E1 (Aegis Intercept Flight Test)	4	2014	4	2014
FTM-25 E1, E2 (Aegis Intercept Test Flight)	1	2015	1	2015
SFTM-1 (Aegis Flight Test) E1(Simulated Intercept), E2 (Intercept)	1	2015	1	2015

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Missile Defense Agency			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603904C: <i>MISSILE DEFENSE</i> <i>INTEGRATION & OPERATIONS CENTER</i> <i>(MDIOC)</i>	PROJECT MD22: <i>Missile Defense Integration and Operations Center (MDIOC)</i>	

Events	Start		End	
	Quarter	Year	Quarter	Year
SFTM-2 (Aegis Flight Test) E1(Simulated Intercept), E2 (Intercept)	2	2015	2	2015
FTO-02 (Aegis/THAAD/Patriot Multiple Engagement Flight Test)	3	2015	3	2015
USFT-5 (Arrow Intercept Flight Test)	4	2015	4	2015
USFT-6 (Arrow Intercept Flight Test)	4	2015	4	2015
FTG-17 (GM Intercept Test flight)	3	2016	3	2016
FTT-19 (THAAD Intercept Flight Test)	3	2016	3	2016
FTX-18 (CLEAR Tracking Flight Test)	4	2016	4	2016

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Missile Defense Agency								DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603904C: <i>MISSILE DEFENSE</i> <i>INTEGRATION & OPERATIONS CENTER</i> <i>(MDIOC)</i>				PROJECT ZX40: <i>Program-Wide Support</i>			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
ZX40: <i>Program-Wide Support</i>	2.462	-	-	-	-	-	-	-	-	0.000	2.462
Quantity of RDT&E Articles	0	0	0		0	0	0	0	0		
A. Mission Description and Budget Item Justification Program-Wide Support provides funding for common non-headquarters support functions across the entire program. Includes costs for both government civilians performing these functions, as well as outside services and support contractors that augment government staff in these areas. Other costs included provide facility capabilities for MDA Executing Agent locations (with the exception of Federal Office Building 2), such as physical and technical security, legal services, travel and training, office and equipment leases, utilities and communications, supplies and maintenance, and similar operating expenses. Also includes funding for charges on canceled appropriations in accordance with Public Law 101-510, legal settlements, and foreign currency fluctuations on a limited number of foreign contracts.											
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2010	FY 2011	FY 2012	
Title: Civilian Salaries and Support Description: See Description Below FY 2010 Accomplishments: NA								2.462	-	-	
								0			
Accomplishments/Planned Programs Subtotals								2.462	-	-	
C. Other Program Funding Summary (\$ in Millions) N/A											
D. Acquisition Strategy NA											
E. Performance Metrics NA											

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Missile Defense Agency								DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603904C: MISSILE DEFENSE INTEGRATION & OPERATIONS CENTER (MDIOC)				PROJECT MD40: Program-Wide Support			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
MD40: Program-Wide Support	-	2.900	2.841	-	2.841	2.702	2.504	2.428	2.328	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0		0	0	0	0	0		
Note In accordance with the Missile Defense Agency revised budget structure, the content previously planned in Project ZX40 is now captured in Project MD40 beginning in FY11.											
A. Mission Description and Budget Item Justification Program-Wide Support (PWS) contains non-headquarters management costs in support of MDA functions and activities across the entire Ballistic Missile Defense System (BMDS). Includes Government Civilians, Advisory and Assistance Services, and Federally Funded Research and Development Contracts (FFRDC) providing integrity and oversight of the BMDS as well as supporting MDA in enabling the development and evaluation of technologies that will respond to the changing threat. Other costs included provide facility capabilities for MDA Executing Agent locations (with the exception of Federal Office Building 2 after FY 2011), such as physical and technical security, legal services, travel and agency training, office and equipment leases, rents and utilities, data and unified communications support, supplies and maintenance, and similar operating expenses. Also includes legal settlements, and foreign currency fluctuations on a limited number of foreign contracts. In keeping with congressional intent, PWS is allocated among the PEs on a pro-rata basis and therefore fluctuates by year based on the total MDA budget and the individual PE's budget amount. Funding for the FY 2010 accomplishments is reported in prior year budget project ZX40 (\$2,067).											
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2010	FY 2011	FY 2012	
Title: Civilian Salaries and Support Articles: Description: See Description Below FY 2010 Accomplishments: Funding for the FY 2010 accomplishments is reported in prior year budget project ZX40 (\$2,067). FY 2011 Plans: See paragraph A, Mission Description and Budget Item Justification FY 2012 Plans:								- 0	2.900 0	2.841 0	

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Missile Defense Agency		DATE: February 2011	
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603904C: <i>MISSILE DEFENSE</i> <i>INTEGRATION & OPERATIONS CENTER</i> (MDIOC)	PROJECT MD40: <i>Program-Wide Support</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2010	FY 2011
See paragraph A, Mission Description and Budget Item Justification			
Accomplishments/Planned Programs Subtotals		-	2.900
C. Other Program Funding Summary (\$ in Millions) N/A			
D. Acquisition Strategy N/A			
E. Performance Metrics NA			